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REMARKS

ON SOME ANNOUNCEMENTS CONTAINED IN

LIEBIG'S ORGANIC CHEMISTRY,

CHIEFLY DIRECTED AGAINST THE

THEORIES AND OPINIONS

OF LIEBIG ON THE PROCESSES OF

FERMENTATION, PUTREFACTION, AND CONTAGION:

WITH

NEW VIEWS OF COMPOUND SUBSTANCES.

By HORATIO PRATER, Esq., London, Author of "Experimental Inquiries in Chemical Physiology."

ALTHOUGH Liebig has investigated the phenomena of fermentation and putrefaction after a most masterly manner, I think it may reasonably be affirmed that he has attempted to generalise too much on the subject; or, rather, that he has not succeeded in his admirable attempt. That fermentation is (as he says) produced by decomposing matter communicating the same sort of action (somewhat after the manner of contagion) to a solution of organic matter, otherwise not disposed to change, seems in his work pretty clearly established, and may be considered to be his own important discovery on the subject. But I propose in this essay to render it clear that his attempt to refer the peculiar action of decomposing matter (atoms in motion) in the case of fermentation, &c., to a more general principle, is unsuccessful. The only instances he seems to have given are the following, and these are rather to be looked upon as *exceptions* to the general law, that affinity in action *cannot* communicate such action to all substances that happen to be present. I say they should rather be considered as exceptions to the general law of inorganic matter, because they are so few, fewer even than Liebig supposed. The facts on which he founds his opinion are the following:—

First. Metallic copper is not soluble in heated dilute sulphuric acid, while an alloy of copper, zinc, and nickel dissolve easily.

Second. Platinum alone, even in minutest state of division, is not soluble in nitric acid, while an alloy of platinum and silver is so.—(Chimie Organ., p. 225, French translation.)

Third. According to Kuhlman, no nitric acid is formed when spongy platinum is heated in a mixture of pure azote and oxygen, but only when heated in a mixture of cyanogen and oxygen in excess, or (p. 270), (a less satisfactory example) hydrogen and oxygen and azote.*—(Opus. cit., p. 282, 3.)

I have put these three so-called facts together, although they are placed in different parts of Liebig's work, because they appear the only ones which can be referred to the same principle, and also to a principle, if established, which is similar to that causing fermentation and putrefaction. As to the decomposition of the chloride of azote, by touching it; also that of peroxide of hydrogen, by the *contact* of different substances; contact or agitation immediately causing crystalisation from a saturated saline solution, &c. &c.; all these phenomena seem to have little or no relation either to the three so-called facts above stated, or to the phenomena of fermentation or putrefaction; for

* Again, pp. 112-13, the volatilisation of a *solution* of boracic acid, or muriate of soda, at a very low temperature, while the two *in substance* are perfectly fixed, even at a full red heat, is grouped by Liebig among the same phenomena, the solids continuing the action which the water begins. But this is a case of evaporation, instead of solution or oxidation, and has little or no analogy to an action continuing through the same fluid. The salts are probably rather *drawn up or forced up*, by the ascending current, as it were, than actually *of themselves* continuing the action. This consideration seems sufficient to put them into a distinct class; but we must not forget that Mr. Faraday says such evaporation is confined only to a few.—(Phil. Trans. 1829.)

Liebig himself distinctly says, it is not by the mere contact of the ferment that fermentation is produced, but in consequence of that ferment itself being in a state of active decomposition. Besides, if mere contact, or any kind of agitation (similar to that causing crystalisation in a saturated saline solution), were the cause of the spreading of fermentation, fermentation ought to be produced by such mechanical actions; but no doubt it is not. Ingenious, therefore, as is this attempt to generalise, it is pretty clear that the first three so-called facts, or the phenomena of fermentation or putrefaction, cannot be referred to the effect of mere agitation of particles, as in saturated saline solutions, &c. Let us, then, content ourselves with examining the three assertions in question, for if they are clearly made out, there will only be a shadow of reason to attribute fermentation to the same cause; and if they are unfounded, we must be content to consider fermentation, in the present state of our knowledge, as an ultimate fact, peculiar to organic matter, and in all probability peculiar to such matter in consequence, chiefly, of its facility of decomposition.

On subjecting brass wire to the action of boiling dilute sulphuric acid, in order to see if the zinc would communicate its solubility to the copper (according to Liebig's theory), I found sufficient copper was dissolved to be turned blue by ammonia. As I thought it probable that copper filings (in a fine state of division) were really soluble in heated dilute sulphuric acid,* I subjected them to such experiment, and found them to dissolve in sufficient quantity to colour the solution, and to be rendered blue by ammonia; the part undissolved was, in a great measure, converted to the black oxide.

The experiments just related were made in reference to Liebig's assertion (1), in regard to an alloy of copper, zinc, and nickel. But as we see that copper, in a fine state of division, is soluble in dilute sulphuric acid, of course solubility is not communicated to it by the zinc; indeed, the brass wire, though very fine, seemed only to a slight degree soluble in dilute sulphuric acid, and not so soluble as the copper filings.

In relation to experiment (2), the *finest* platinum filings were put in nitric acid, in order to see if platinum itself was not, in some degree, soluble; but there was neither when the filings were boiled by themselves in nitric acid, nor in contact with silver filings, any appearance of solution, though these latter dissolved, of course, rapidly; nor when a platinum wire, of *the 1-500th of an inch in thickness only*, was put in the acid in contact with silver, was it in the slightest degree dissolved or even discoloured. But the reader, by referring to the note on fusion, at the end of this essay, will observe, that admitting the fact of the solubility of the platinum in nitric acid, when fused with silver (for Berzelius says the same), I think such fact explicable on other views than those adopted by Liebig.

I have not repeated (3) Kuhlman's experiment in reference to the formation of nitric acid. But, granting the truth of his assertion, I do not think that this sole example is sufficient for Liebig's purpose, because the gases here made use of are those of which *organic* matter (animal) is in great part composed. We should hence expect some degree of such property in cyanogen, which seems to be considered a radical of animal matter, and at the same time contains combustible matter.

Cyanogen (like carbonic oxide) is inflammable; the carbon in the one case communicating its combustible property to the azote, and in the other to the oxygen; that is to say, when the oxygen is in small quantity: for when it exists to the same amount as in *carbonic acid*, we find the combustible quality destroyed. Now, on our views of this subject, *combustible* and organic matters should possess this property of communicating action.*

We say combustible and organic matters, because although organic matters are, for the most part, combustible in the dead (and dry) state, they are not so in the living; and because sulphur, phosphorus, and some other matters (as the metals), are combustible, without, as far as we can judge, being susceptible of vitalisation (if we may so speak), being, as we may conceive, too combustible for supporting the vital processes, these requiring only the "slow combustion," as Liebig calls it; at the same time, even animal combinations are, perhaps, *necessarily* of combustible elements.

In the foregoing remarks I have not alluded to the fact that hydrogen may be substituted for the carbon, because it is obvious that hydrogen is a substance of combustible nature and an organic element, and hence, of course, should, according to our views, be a fit substitute. But in this case there is also another reason, and one which makes this

* Most chemical authors seem to admit this; but if the alloy of copper, zinc, and nickel is soluble in weaker dilute sulphuric acid than copper is, Liebig had grounds for adducing this as an example of his theory: but that the theory *altogether* is erroneous, is shown, I think, in the note on fusion at the end of this essay.

* However, I do not know whether even these cases of communicated action are not better referred to the principle of compound matter, being, as it were, a *new substance* with new properties, as the reader will see more fully developed under the note "on fusion;" the ideas contained in which are the result of further reflection on this subject after this essay itself was written.

example not at all to Liebig's purpose, viz., that water is *indispensable* to the formation of nitric acid; and water is formed when ammonia, or hydrogen and nitrogen, are burnt in contact with a sufficient quantity of oxygen.—(Liebig, p. 284.) Liebig, in this part of his work, then accounts for the formation of nitric acid on other grounds, and is somewhat inconsistent with his statement at p. 270. Nevertheless, as he seems in some degree aware he could not properly bring this example under the same head as cyanogen and oxygen, we see how few solid examples he has been able to urge in favour of his theory; yet, if a general principle, he ought surely to have found numerous other examples.

But to return to our point. One thing is certain, that even if Liebig can bring forward one instance in favour of the property in question extending to matter that is not combustible, yet there seem to be a hundred examples where the precisely opposite case obtains, as in all the *electro-chemical combinations*. In all those cases the most oxidable metal has its affinity for oxygen increased, to the exclusion of the less oxidable one. In the well-known case of copper, zinc, and sea-water, the copper, which would otherwise have been oxidated, is prevented from oxidation by the contact of the zinc; that being, at the same time, oxidated more rapidly, the copper transferring (as it were) its property of oxidation to the zinc. And here we may observe, that all these electro-chemical combinations show that *contact* has often a wonderful action in modifying or altering affinity, acting in many cases, doubtless, and perhaps in all, by disturbing electrical relations. But however to be explained, the fact is obvious; and Berzelius, in pointing it out, and extending it to some other cases, such as the effect of dilute sulphuric acid on a solution of starch at a certain temperature, chlorid azote (mechanical contact), &c. &c., seems to have rendered a service to science: not that I would assert that he has grouped only cases under this head that properly belong to it; on the contrary, I think Liebig's observations necessarily oblige us to refer *some* of these cases to another and a different principle, viz., that a body undergoing decomposition tends to communicate the same property to the matter in contact with it, if, we may add, that matter be organic. Thus, to this latter principle should be attributed the acts of fermentation, Liebig having clearly shown that in this case the mere contact of the ferment is not sufficient, unless that ferment be in a state of decomposition. Thus the ferment, being heated at a low *heat* in a close vessel, ceases to disengage gas, and, at the same time, to excite fermentation; but on being left in contact with the air some hours, it acquires the property anew, and, at the same time, disengages from its own mass carbonic acid.—(Op. cit., p. 257.)

This experiment clearly shows that *contact alone* is not the way in which the ferment acts; and Liebig has, consequently, established his principle as regards the important action of fermentation. But here I conceive we may fairly stop, and say that all his attempts to include other phenomena, excepting contagion, and putrefaction, and combustion, under the same head, entirely fail.

All the various actions already alluded to, platinum in nitric acid, crystalisation of a saturated saline solution, &c. &c., cannot be referred, as he would insinuate, to the same cause: we have only to look more narrowly into the phenomena, to be convinced of this.

There is one thing with regard to fermentation, where vegetable juice (where gluten) is present, that distinctly separates such phenomenon from the great bulk of chemical actions; I allude to the reproduction of the ferment, which, says Liebig, is sometimes twenty times its weight.—(Op. cit., p. 288.)

Now the resemblance between this action and that of nutrition or generation in living matter, cannot fail to excite notice: for here we have matter converted into its *like* from the contact or action of other matter, carbonic acid and heat being evolved too, as when new organic beings are produced. And to make the analogy still more complete, this reproduction of the ferment only takes place when the solution contains gluten; or, in other words, a vegetable juice, possessed, like the blood of animals, to a certain extent, of life, as containing *globular* particles; for (says Liebig) when only a solution of sugar is used with the ferment, there is no reproduction of this latter: the action then, when no gluten is present, merely *extends, or spreads*, as it does *in combustion*. In the mere fermentation, &c. of sugar, the whole of the matter is *changed* into combinations of a less organic character than sugar, viz., alcohol and carbonic acid: so it is also where gluten is present; but besides this, in the latter case is a real formation of *organised*, or *incipient* organised, matter. And it is worthy of observation, that, as when sugar and yeast only are present, there is no reproduction of this latter: in like way, when only gluten is present in solution with the yeast, the yeast is not reproduced. Sugar must be present, which is for the most part changed into carbonic acid and alcohol, the remaining part, by its decomposition, affording oxygen to the gluten, which in this way is changed, says Liebig, (Op. cit., p. 239,) into yeast. If we adopt this explanation, the presence of sugar only becomes necessary in the formation of yeast, by imparting oxygen: but there are some objections to this view, which would almost reduce fermentation to an action of ordinary inorganic chemistry, Liebig's express object. These objections are,

1st. From experiments that I have lately made (with a different object in view indeed), it was obvious that when polished iron, or bright

iron filings, was put into the thickest syrup, or into hot fused sugar, no oxidation whatever took place. So far then as iron is concerned, a solution of syrup is not so much an oxidising agent as common water.

2ndly. Why, if oxidation, and oxidation only, be the cause of the reproduction of the yeast, is it not reproduced when a solution of gluten containing yeast is merely left exposed to the atmosphere?* Liebig says, "in different parts of the work under consideration, that gluten has a strong affinity for oxygen." And, indeed, the fact seems, that when a vegetable or animal juice is exposed to the air, oxygen (as in all cases of putrefaction) is absorbed: and although the product in that case is a fluid or mass that will excite fermentation, for Liebig says expressly (p. 259) that perhaps all matters (see his long list), animal or vegetable, *themselves in a state of putrefaction*,† have this effect, still this product would not, I suspect, be *yeast*.

As, then, the production of carbonic acid and alcohol from sugar can be effected by no other known means than the presence of yeast (Graham's Elements, p. 196), so, likewise, in all probability, that can be formed by no other known means than by *the action of itself* on sugar and gluten in the same solution.

This view of the subject will make the formation of yeast very similar to the reproduction of life in the highest order of animals; and Cazniard de la Tour's paper in the Annales de Chimie, is in support of the action arising from the reproduction of vegetable germs; an opinion, indeed, opposed by Liebig, but, as appears, in my humble opinion, on insufficient grounds. But for the sake of argument, let us take the opposite view of the subject (for Liebig does not seem to give a very clear opinion on this case), and conceive that when a piece of putrid vegetable or animal matter excites fermentation in a mixture of sugar and gluten, yeast is produced, just as when yeast itself excites the action; then let us also conceive that yeast may sometimes be produced when a mixture of vegetable juice (gluten) and sugar* is exposed to the air (simply to enable it to absorb oxygen), no yeast being added, and what would be our conclusions? Why, if yeast could be produced under such circumstances, the formation of that substance, doubtless, could not well be likened to the generation of a seed from a seed; to the production of life, as among the *great mass* of plants and animals; to the production of life from *its like*. But, still, under such circumstances it would be similar, if not identical, to *the action of equivocal generation among animalcules*, or nutrition in the animal and vegetable kingdoms. For the production of animalcules (the infusoria) all that seems necessary is, that the conditions of putrefaction (i.e. an organic solution at a certain temperature in contact with air) be present; the air in this case seeming in some degree to supply the place of a previous living monad, and exciting to action by the absorption of its oxygen; but if yeast were formed, when sugar was put into the organic solution in question, instead of, or in common with, infusoria, the production is only that of the lowest vegetable, instead of the lowest animal, life. The analogous formation of infusoria (an organic solution being absolutely necessary for the formation of these) would make the action still come under the class, if we may so speak, rather of vital or organic, than common, chemical actions, *particularly as the yeast once formed has, like the infusoria, a power of propagating its like*. This is the consideration that would make the formation of a yeast, under *any circumstances*, rather like an organic or a vital, than merely a chemical, action. In all probability, the products in organic bodies are the result of the operation of *ordinary chemical affinity*, modified only by the circumstances in which the molecules are placed by the operation of vital action: but there is this difference in vital operations, viz., that many kinds of

* At p. 379, when comparing the action of fermentation with contagion, Liebig says, "The ferment acts on the sugar, and occasions in it a change, in which the gluten takes no part; but by the influence of the *air*, this undergoes an alteration of form and composition, in consequence of which the ferment reappears again with all its properties." This statement seems, in some degree, incompatible with that at pages 288, 289, already quoted, but perhaps not entirely so; for both agree as to gluten being changed into ferment, by absorbing oxygen. However, in p. 288, it appears that this change may take place, and generally does take place, without the access of air; and in such case Liebig supposes that the oxygen necessary is derived from the sugar.

† Colin, however, seems to have made this discovery, or other authors previous to Liebig. There are fewer new facts in Liebig's essay than might be supposed; its great merit consists in an attempt to generalise well-known facts. I somewhat regret that such an attempt should be unsuccessful; since it is setting so good an example to the chemical world in general, *who neglect too much the classification of well-known facts.*

* Ferment or yeast would only be produced under such circumstances in case *sugar* were present. Now, as sugar is present in vegetable juice, and also in an infusion of malt, ferment or yeast can, in all probability, be generated when such matters are exposed to the air, inasmuch as a decomposing or putrid solution will be produced; for vegetable juice produces ferment under such circumstances, and Liebig says (p. 288) that that seems identical with yeast in properties.

matter, different in appearance, taken into the living body, are all converted into the same substance, or go towards forming a whole, similar to the one in which they are received. The only point in which these different substances must resemble each other is, that they must consist of *organic matter:* just so, if we suppose yeast may be formed from various decomposing organic products, supposing that may be the case, it is still certain that none but *organic* matters will do for such transformation; but if yeast can reproduce itself from such matters, such matters will be similar to food, as taken by living beings, and the production of yeast will resemble the act of nutrition.

ON THE

OPERATION OF HEAT,

IN PRODUCING THE DISEASES OF

THE LIVER, DYSENTERY, &c.,

TO WHICH THE

EUROPEAN IN INDIA

IS SO LIABLE; AND ON THE PRINCIPLES ON WHICH THEIR

PREVENTION AND CURE

SHOULD BE ATTEMPTED.

The Fruit of Two-and-twenty Years' Observations and Experience in the Treatment of these Diseases.

By CHARLES SEARLE, M.D., M.R.C.S.L.,
Late of the East India Company's Madras Establishment.

(Concluded from p. 356.)

PART IV.

It will have been observed in these diseases, that however numerous they may appear, they are all one unbroken chain of effects, arising out of one common cause, or intrinsically as one disease; and it will accordingly be observed, that the remedies for their treatment are few in number. And as it is indispensable to understand the nature of the disease to determine the principles for its treatment, so is it essential fully to comprehend the mode of operation and power of our remedies, to successfully apply them to practice: and as the two principal remedies, it will soon appear, are blood-letting and mercury, that the indications for their employment may be well defined and distinctly understood, I beg to be permitted to make the following observations on the subject.

Blood-letting.—With reference to this, the analysis given of the nature of the diseases we are treating of, must clearly point out the principal indications to be fulfilled by this remedy in their treatment, that we have only to remark upon a few points, meriting attention in its particular application. The intentions held in view in having recourse to bleeding in the treatment of these diseases, are, either to remove congestion and impediment to the force of the heart and powers of the circulation, or, in other words, to adjust the balance between power and resistance, or, otherwise, to diminish or control the power of the heart and momentum of the blood, when these forces are in excess, as in inflammation. Now, as inflammation consists in preternaturally-increased action of the capillaries of the part affected, succeeding in these cases of disease of the liver and bowels to congestion, the object of bleeding in inflammation is twofold—the removal of both cause and effect. And as inflammation, if not speedily arrested, will prove destructive to the organisation of the part, and can be influenced only by acting upon the whole system, the quantity of blood to be withdrawn at one operation accordingly becomes large, from twenty to fifty ounces, and from a large orifice, so as to produce deliquum, and the perspiration of relaxation which accompanies it. And the same should be repeated at intervals of a few hours after, should the symptoms justify the measure, so as at no time to allow the inflammation to progress; and with the same view, the application of a dozen or twenty leeches over the organ affected, should in general succeed the bleeding from the arm, to maintain its effects.

From these remarks upon the treatment of inflammation, it must be obvious that the very opposite obtains, in the indications for having recourse to bleeding in congestive disease, which is characterised by suppression of power, and an oppressed or feeble pulse. Smaller bleedings at longer intervals, that the system may have time to accommodate itself to the loss, are here indicated; and under this mode of its application the heart increases in energy, and the pulse in fulness and strength, to an extent, indeed, sometimes, that the heart requires the controlling influence of a large bleeding, to moderate the excitement which succeeds to the removal of the oppression. The quantity of blood to be drawn, therefore, at one operation, in the treatment of congestion, is limited by its effects upon the pulse, its rising or flagging under the loss, taking it from a small orifice, and in quantity from eight to twenty-four ounces, and at intervals of from six hours to two days, or more, according to the character of the disease and emergency of its nature.

On the subject of blood-letting, I have only to add, that in chronic cases and others, as a mode of local depletion, leeching the anus is often of singular benefit, from the connection of the blood-vessels of the part being immediate with those of the bowels and liver.

Mercury.—I am now to speak of this remedy of such universally-acknowledged

efficacy and utility in the diseases of the liver and bowels, that it is indispensable to clearly understand its operation and power upon the system, that so valuable a remedy may be duly appreciated, yet not indiscriminately employed, which is but too frequently the case.

The primary operation of mercury I believe to be specific upon the capillary vessels, exciting them to increased action. Hence its general influence on the system, its renowned deobstruent power, as well as its acknowledged operation on the glandular system, in increasing all the secretions. The more obvious and immediate effect of mercury on the liver, evinced by the operation of two or three grains of calomel, almost with certainty producing a bilious evacuation, is, doubtless, attributable to its primary and direct influence upon the liver, to which, when absorbed from the stomach and bowels by the veins of these organs, which form the roots of the vena porta, it is first conveyed, before it enters the general current of the circulation. Its operation in exciting the capillary arteries, and thereby secretion, necessarily removes obstruction from the exhalants, and congestion from their venous terminations, and thus is exudation prevented and absorption increased; and hence the accredited action of mercury upon the absorbents in removing the various serous exudations.

Its power of increasing capillary action is further evinced by the febrile commotion it excites in the system, and the buffed blood of those under its more abundant influence; effects, on the exhibition of mercury, which should be guardedly watched, as, when arising, prohibiting necessarily its further employment, and which exhibit to us that the indications for its use in inflammation is limited to the atonic stage; and that in no case should it be given in the active condition involving the heart's excitement, save in very guarded doses, and then only in conjunction with other evacuants; but when the more active condition of inflammation has been moderated by bleeding and other evacuants, or debility has succeeded to excess of excitement, its administration then supports the due action of the vessels, excites the secretions, and invigorates the heart, in common with the rest of the functions, and becomes our chief remedy; and carried to the extent of producing ptyalism, which appears to mark its ultimate effects for good, is of all remedies the most valuable.

In thus viewing the operation of mercury upon the system, and of calomel, its most useful preparation, how obvious is its indication and almost specific operation in the treatment of the diseases of the liver and associated organs, which are so prevalent in hot climates.

With these prefatory observations we may now proceed to speak of the treatment: and first, of that most frequent form of derangement, the primary link in the chain of these diseases of hot climates—torpor of the liver, evinced by defective biliary secretion and constipated bowels, the effects of congestion and defective excitement of the liver, the attending symptoms of which we have already enumerated. In the treatment of this affection it is obvious, bleeding and calomel are our principal remedies. The former, in relief of the congestion of the liver, should be immediately practised to the extent of from twelve to twenty-four ounces, and repeated at intervals of a day or two, till the breathing is perfectly free, and every feeling of oppression is removed from the precordial region: at the same time a pill of two grains of calomel with one of aloes should be given two or three times a-day, and a couple of drachms of either of the saline purgatives every second morning, till the secretions of the bowels are perfectly healthy, and sleep and appetite are restored; when, to prevent a recurrence of the disease, a more abstemious diet should be observed, and as much exercise taken as the patient is capable of, short of producing fatigue.

Bilious Fever.—The ephemeral affection is to be here understood, in contradistinction to the remittent type of fever with bilious symptoms; a distinction which is to be carefully observed. The fever in this case is the synochal or inflammatory, from cold or other cause of excitement, associated with hepatic congestion and derangement, and attended often with a good deal of cerebral excitement, and sickness of stomach sometimes as well. The bleeding in this case should be in proportion to the excitement present, from sixteen to thirty ounces, or more, and repeated after the operation of an active dose of calomel and jalap, should pains in the head, oppression of breathing, or uneasiness about the precordial region continue. The bowels in these cases are sometimes obstinately costive, which is fairly attributable to the congestion of the brain, as it most readily gives way to the application of a dozen leeches to the temples: an enema is, of course, an useful and a very proper accessory. The bowels having been freely relieved, the purging should be followed up by small doses of calomel, in combination with emetic-tartar and minute doses of opium, every two or three hours, till bilious evacuations are freely obtained, and of a healthy character, and the skin becomes perspirable.

Bilious Purging.—Should this, from increased secretion and irritation of the bowels, succeed to congestion of the liver, the increased secretion arising, we may suppose, from communicated irritation to the biliary ducts, or as a consequence of an excess of the elements of bile-carbon contained in the blood; or, in other cases, occur from irritation of the duodenum, from the inges-

tion of some irritating substance or spirituous beverages into the stomach, as congestion of the liver is the basis of the affection, blood-letting is the primary indication to be fulfilled, to the quantity of from twelve to twenty-four ounces, or to the extent justified by its effects upon the pulse at the time of operation; following this up by two grains of calomel, with a third of a grain of opium, every three or four hours, till the purging ceases, and the secretions, which are in general green and muculent, become healthy; repeating the bleeding or not, as circumstances may indicate, and following up the calomel, a suitable time afterwards, with a dose of castor-oil.

Cholera Morbus.—The quantity of green bilious fluid ejected by the stomach, and evacuated also by the bowels, in a case of this kind, is sometimes very great; and the irritation and exhaustion consequent thereon is in such cases extreme. It is, however, to be borne in mind, that it is a disease highly congestive of the liver, and not unfrequently associated with, or is succeeded by, inflammation of the organ. Bleeding here is an obvious indication, but necessarily when the exhaustion is considerable, it must be cautiously carried into practice, the patient being in the recumbent posture, and to an extent limited alone by its effects upon the pulse, taking it from a small orifice, and repeating it every three or four hours after, as excitement becomes developed, or circumstances render necessary. The bilious evacuations, which I believe often to be a curative effort of the system for the relief of the oppressed organ, however proper to moderate, should not, therefore, be hastily suppressed; which is a too frequent practice to attempt by large doses of opium. The operation of calomel being modified by the dose, a large one is here indicated. A scruple may be often given with advantage, combined, if there be much exhaustion, with a grain of opium; and a fourth or sixth part of this dose repeated every three or four hours afterwards. A large mustard plaster should, at the same time, be laid over the region of the stomach, and kept there for fifteen or twenty minutes; and upon the principle of derivation, advantage may be obtained also by immersion of the feet and legs in a pail of hot water, in which a couple of ounces or more of flour of mustard have been diffused; or, in severe cases, general immersion of the body in a bath of the same description may be very advantageously practised. The vomiting, if considerable, is best allayed by keeping the bowels excited, by the occasional administration of a large injection of warm water, in which a small quantity of salt has been dissolved; or half a drachm of calcined magnesia in two ounces of water, between each dose of the pills, is useful, with the same intention.

The vomiting and more urgent symptoms being by these means allayed, the liver should now be more particularly examined, and a dozen or twenty leeches, should there be pain, applied over the part, and afterwards a large blister: the pills being, at the same time, continued, every four or six hours, till gentle ptyalism is induced.

The symptoms of cholera, occasioned by the ingestion of some poisonous agent into the stomach—as stale oysters, or other improper article of diet or beverage, and of which bilious vomiting is a curative effort of the system—requires but the aid, on our part, of a few doses of calomel, and the support of light nutritive broths and occasional cordials.

Hepatitis.—The development of this in the acute form, is evinced by pain in the right side under the margin of the ribs, and extending often with the liver considerably across to the left side, and by nervous connection to the point of the right shoulder; cough and oppressed breathing; hot skin and excited pulse. I must here, however, observe, that with active disease in the liver the heart is often but little implicated; the pulse seldom exceeding 96, and the skin being but little increased in temperature; excepting in those cases implicating the peritoneum and diaphragm in a greater degree, and simulating by the cough and difficulty of respiration, the more prominent symptoms here present—pneumonia.

The treatment proportionate to the emergency evinced by the pain and oppression of breathing, must be prompt and decisive. The patient should be immediately bled to faintness; and this should be followed up by an active dose of calomel and jalap, and two hours afterwards by a solution of one of the saline purgatives, with emetic-tartar. And after the effective operation of the purgatives, without the oppression of breathing and symptoms are materially mitigated, the bleeding should again be practised; otherwise, the patient should be immersed in a warm bath, and afterwards twenty leeches applied to the side, and a warm poultice after their removal; and the stomach, at the same time, kept nauseated with the mixture. The more active disease being by these means subdued, and the skin being moist and pulse soft, a large blister should be applied; and we may now have recourse to calomel, in doses of two grains, in combination with a quarter of a grain of emetic-tartar and as much opium, every three or four hours, till gentle ptyalism is induced: observing, at the same time, to leech the anus, or bleed from the arm, should the stimulus of the mercury prove too exciting.

And here I must observe, that in all cases of acute inflammation of the liver and bowels, it is indispensable that the patient be seen by his medical attendant every four or six hours, both by day and night, that bleeding be promptly and efficiently employed, as the pulse and symptoms, from time to time, indi-

cate the necessity of: as, if inflammation be only moderated, instead of being promptly subdued, it will too often terminate in disorganisation of structure, from which few will recover.

Here, however, let me remark, that after bleeding and evacuation of all kinds have been pretty actively employed, should the pulse increase in frequency, to, let us say, 100 or more, the skin becoming at the same time excited, and at others perspirable, there will be reason to apprehend the existence of a febrile cause—the presence of which can alone be determined by careful observation and attention to the symptoms; and is denoted by periods of exacerbation, and remission of pain in the side or head, temperature of the skin, and frequency of the pulse. If this proves to be the case, the disease must be treated as one of remittent fever, and the sulphate of quinine be substituted for the calomel, and administered in doses of a grain or two every two hours; and the pain in the side treated locally by blistering the region, and leeching the anus, should further depletion become necessary, and subsequently rectifying the secretions of the liver when the fever is at an end.

Suppuration and abscess of the liver will, however, sometimes take place in spite of our best endeavours, from the patients, I believe, not coming sufficiently early under our treatment. This termination of inflammation is, in general, evinced by a sense of heaviness in the part, and throbbing succeeding to the pain in the side; and by shivering, succeeded by a short stage of febrile reaction, terminating in copious perspiration. Frightful dreams and convulsive startings on going to sleep are sometimes complained of; a soft fluid pulse, and copious deposit in the urine, are also symptoms.

On suppuration taking place, the treatment, of course, is altered accordingly. If salivation has not taken place, which in such cases seldom occurs, the mercury producing rather ulceration and swelling of the tongue and gums, the calomel should not be proceeded with further; on the contrary, every source of irritation should be carefully avoided: the indications now being to palliate symptoms, and support by every expedient the strength and comfort of the patient. Accordingly, a more nourishing diet is now admissible, and a little wine or beer is occasionally necessary, though excitement of any kind must be carefully avoided. A blister should be kept open, or a seton inserted in the side, and the bowels relieved daily by castor-oil, if any laxative be found necessary. A grain of quinine, three or four times a-day, or a drachm of nitric acid in a quart of water as a tonic, is also now indicated; and all the appearances, as change of air and passive exercise, or a sea-voyage to improve the health and support the strength, should be resorted to.

If the abscess can be detected externally, it should be punctured, and its contents drawn off with a trocar, carefully excluding the air's ingress into the cavity. Sometimes the abscess ulcerates through the diaphragm into the lungs, and the matter, if the patient is not destroyed at the instant by suffocation, is coughed up; or the matter opens itself a passage by ulceration into the bowels, or passing through the biliary ducts into the bowels, passes off by stool, or is puked up. At other times, and in more favourable cases, the abscess being single and not large, the matter remains encysted in the liver, and is gradually absorbed, and the patient regains his health. In other cases, it remains in a passive state, with but little inconvenience to the patient, until some fresh exciting cause develops its progression, and it proves destructive. In many cases there are, not one only, but several abscesses existing at the same time, destroying, in some cases, almost every vestige of the organ.

Chronic Hepatitis.—This, or subacute inflammation, may succeed to the mitigation of the acute symptoms, or succeeds directly to congestion; and not unfrequently occurs as a sequel of fever. Pain or oppression in the side is complained of, with feverish and restless nights, and pain of the rheumatic kind in the shoulder, and occasionally elsewhere; continued torpor and derangement of the bowels, and sometimes a dysenteric state are observed; loss of appetite, headach, and contracted pupils; occasionally sickness, and oppression of stomach and pain after meals are complained of; an oppressed or contracted, and slightly increased, frequency of pulse, dry skin, furred tongue, and sallow countenance—these, wholly or in part, are the principal symptoms. The treatment consists in bleeding to the extent of from twenty to thirty ounces; and a pill of two grains of calomel, with a quarter or one-third of a grain of emetic-tartar, should be given three times a-day, and a saline purgative every morning: and if it can be conveniently adopted, immersion of the patient in a warm bath for half an hour or longer every evening. The bleeding should be repeated on the following day; and this should be followed up by the application of a dozen leeches to the anus two days afterwards, and as often after as necessary; that is, till inflammation and congestion be completely removed. A blister should be early applied to the side; and, after it has healed, repeated once or oftener, or a seton be inserted and kept open. On the gums becoming tender, the pills should be continued less frequently, but, nevertheless, till gentle ptyalism is induced, and the gums afterwards kept tender for some time, till health is established. After the blister has healed, if the seton be objected to, half a drachm of mercurial ointment, or more, may be daily rubbed in upon the side for half an hour, and a purgative of jalap, or senna and

salts, administered every second day, instead of the calomel; and salivation, or tenderness of the gums, be induced in this way. The advanced stage of this affection, or chronic suppurative condition, from the rigor, febrile reaction and perspiration which attend it, often simulates or is mistaken for remittent fever: the post-mortem examination alone determining the mistake.

Dysentery—A sanguineo-muculent flux into the bowels, attended with pain; frequent attempts at evacuation, and severe straining, the effect of the blood's impeded current from the veins of the bowels through the liver, and not unfrequently associated with inflammation, induration, or abscess in the organ; the treatment is, obviously, blood-letting, in relief of the distended veins of the bowels, and inflammation which attend it, in conjunction with mercury to excite biliary secretion and increase the circulation through the liver. From twenty to thirty ounces of blood should be immediately taken from the arm, and twelve grains of calomel administered; following this up two hours afterwards with an ounce of castor-oil. After the operation of the oil, the bleeding should be again practised and repeated every four or six hours after, with less reference to the pulse than to the straining and bloody evacuations, and pain at the anus, or pain on pressure over the cæcum, or along the course of the colon; administering, at the same time, from four to six grains of calomel with one of ipecacuanha in pill every three or four hours, till a bilious stool is obtained; which, marking the liver's return to duty, and obstruction being removed, or partially so, is attended with marked relief to the patient; and as the influence of the mercury becomes more apparent on the system, so is the amendment progressive; and when the gums become tender, or rather, salivation induced, the pulse in general becomes full and energetic, the surface healthily excited, the spirits buoyant, and straining evacuation, and every distressing symptom, vanishes.

In no case of disease is the utility of mercury so obvious as in dysentery, and gentle salivation I believe to be indispensable in all cases, and, in the severest forms of the affection, desirable to be induced with all expedition; and with this view from twelve to twenty grains of calomel should be given every two or three hours, and to restrain its influence on the bowels, and to secure the patient a little rest, two grains of opium may be given at bedtime, or half a grain conjoined with each dose of the calomel; but to guard against the inconvenience of excessive or sudden salivation, it is indispensable to examine not only the gums, but the evacuations also, and as they become bilious to diminish the dose of calomel or its frequency accordingly. When bile becomes secreted, the first few evacuations are often of a dark green, spinach-like appearance, and attended generally with severe griping, when a dose of castor-oil may be very properly given, or a warm emollient clyster will afford much relief in these cases, and may be occasionally repeated.

Should the patient not have come sufficiently early under treatment to justify the active bleeding we have advised, or in addition to it in the more active forms of the disease, twenty leeches should be applied to the abdomen, and after their removal the patient should be immersed in a warm bath for twenty minutes or longer; or if this be not available, the abdomen should be fomented with hot water for half an hour, and the fomentation repeated as often as convenient, warm emollient oily clysters may be also administered occasionally, where they afford relief. The diet in these cases should be confined to sago or arrow-root, or barley-water with milk, and limited to a few spoonfuls at a time.

Should the inflammation have been of the active kind, and not subdued during the first three days of the disease, mortification of the bowels will probably ensue—evinced by the cessation of pain and of straining, fluid, offensive, watery evacuations, hiccuping, delirious wandering, and general prostration. When this takes place, the object is to support the declining powers of the system by wine and nutriment, soothe the patient by opium, and palliate symptoms as they arise.

Chronic Dysentery.—Instead of mortification ensuing, which is too frequent in the severer forms of the disease, the acute symptoms being mitigated but not arrested, lapse into the chronic form of the affection; the patient having six, eight, twelve, or more muculent, and more or less fæculent evacuations, betinged with blood, and attended with straining during the twenty-four hours. The evacuations are often yeasty and porridge-like, and more frequent during the night than in the day. The treatment of these cases, in which the mucous membrane of the large intestines is in general ulcerated, must be of a modified character; the irritation of mercury upon the system is to be avoided, though attention should be paid to the secretions of the liver; blistering the abdomen is often of great benefit, as well as the occasional application of a few leeches to the anus in relief of the straining; the balsam of copaiba, in doses of half a drachm three or four times a-day, is also another useful remedy, conjoined with an opiate at night. The ipecacuanha in the form of pill in doses of three or four grains three times a-day, combining it in some cases with half a grain of opium, and in others with two or three grains of mercury pill; and again, in others, with half or a grain of the quininæ sulphas, are all valuable remedies. If the evacuations are very offensive, a drachm of charcoal powder three or four times a-day has proved useful; or a drachm of nitric acid in a quart

of water as the ordinary beverage. Change of air is very desirable in all these cases, and especially to one that is equable in temperature, and where the skin is rendered perspirable by the changes; and for the same reason, immersion in a warm bath for half an hour or longer daily is an useful expedient, and flannel clothing desirable.

A chronic dysenteric state of the bowels is a frequent attendant upon an indurated state of the liver, or abscess in the organ, and symptomatic also of chronic hepatitis.

I must now draw attention to another very important fact, which is, that in localities favourable to the production of malaria, dysentery is often based upon or connected with fever of the intermittent or remittent type. The fever in such cases being often so marked and obscured by the more prominent symptoms of the local or dysenteric affection, as wholly to escape observation; but attention, when wide awake to the circumstance, will discover periods of remission and exacerbation in the symptoms, either in the attending fever, as marked by the frequency of the pulse and temperature and condition of the surface, or in the bowel affection, by pain and frequency of evacuation.

That in all cases where the amendment is not equal to the measures which have been pursued, and especially in the season or place in which remittent fever prevails, there will be strong grounds for suspecting its presence. Should such prove to be the case, the treatment must immediately assume a very different character; the disease being one intrinsically of fever, exciting inflammation and developing the dysenteric affection, in one in whom there pre-existed congestion of the liver and bowels, or predisposition to this affection. When the primary indication of treatment is accordingly the superseding the operation of malaria on the system, or the febrile cause giving rise to the affection by the administration of the sulphate of quinine in doses of two or three grains every two hours after a few doses of calomel have been taken, conjointly with bleeding once or twice in relief of the local affection, if these means have not been previously resorted to; the quinine must be followed up, after the fever has been arrested, by calomel in moderate doses, with the occasional application of leeches to the anus, in relief of pain or straining, till the gums become tender, and the secretions of the bowels are healthy.

Bath, Oct. 28, 1841.

CASE OF IDIOPATHIC TETANUS.

To the Editor of THE LANCET.

SIR,—On some former occasions you have favoured me, by inserting in your highly-valuable Journal some remarks on cases which had occurred in my practice, I beg now to send the following interesting case of idiopathic tetanus, and am, with much respect, your humble servant,

J. PENKIVIL, M.D.

Yeovil, Dec. 6, 1841.

On Wednesday, Nov. 10, 1841, at about one, p.m., I visited the Rev. J. M. C., of this town, who complained of pain and stiffness in his jaw, with difficulty of deglutition. He said he had passed a restless night, for every time he fell asleep he was awoke by the circumstance of his tongue getting between his teeth, which he could not help biting; indeed, it was lacerated, bleeding, and very much swollen. I immediately recognised the disease, trismus. On endeavouring to trace the cause, there had been no external injury: it was not, therefore, traumatic. But as the patient had been for some weeks past under great excitement, and had given himself up to intense application, and on the Sunday and Monday evenings exerted and over-heated himself by preaching, and was afterwards exposed to a cold, foggy atmosphere, I considered it to be what Dr. Mason Good calls "trismus algidus." There is one circumstance that I have since learned, which should be mentioned, and, I think, may be fairly taken into the history of the case. An unhappy neighbour, a few weeks ago, destroyed himself by cutting his throat. The moment the alarm spread, Mr. C. rushed into the room where lay the miserable man weltering in his blood. Mrs. C. told me that he was greatly excited on the occasion, kept on talking about it, and said the scene was constantly before his eyes, and that he thought he never should forget it to his dying day; which, indeed, now seems to have been realised. This shock to his nervous system, at all events, may be considered as a strong predisposing cause to disease. The first sensation he noticed was on the Monday evening, when eating his supper; he felt some pain in moving his jaw, and his tongue seemed in the way. The next morning he complained of general stiffness of the neck, and some difficulty in swallowing his breakfast, but as he did not seem otherwise much indisposed, and thinking "it only a cold," he went to his school as usual; but on returning, the symptoms increased, and Mrs. C. proposed sending for medical aid. This was declined on the expectation of being better. On the next morning, however, having passed a bad night, and being in the state described above, advice was sought for.

When I arrived I found my friend Mr. Tomkins had been called in three or four hours before, and as he had sent some medicines I would not prescribe at that time, but said I would converse with Mr. T. first, and therefore hastened to his house for that purpose, but finding neither him nor his assistant at home, I left a note requesting that

the patient might be cupped on the nape of the neck immediately, and appointed to meet in consultation in the evening. At eight, p.m., we accordingly met. I found the patient had been successfully cupped, and the medicines given had operated pretty freely, and brought off dark offensive stools. He did not appear worse; the pulse was scarcely affected, but the jaw was firmly fixed; there was the sardonic laugh, the voice was shrill, and the difficulty of deglutition increased, but as a teaspoon could be introduced between the teeth, the following boluses were prescribed:—

℞ *Compound ipecacuan powder*, gr. xv;
Calomel, gr. v;
Syrup, to make into a bolus. To be taken to-night.

℞ *Jalap*, gr. xv;
Scammony, gr. x;
Calomel, gr. v;
Syrup, to make into a bolus. To be taken early to-morrow morning. A blister to be applied to the nape of the neck.

Nov. 11, Ten, a.m. The patient seemed better; could have slept, but said he was afraid of giving way to sleep, as the spasm of the jaw came on, and he bit his tongue; had taken scarcely anything but the medicine, as he could hardly swallow; had as much dread of fluids as is observed in hydrophobia, and he constantly spat up, with considerable effort, a thick tenacious mucus; he spoke, however, though labially, tolerably distinctly, and rather cheerfully; his mental faculties were entire; a copious perspiration, which was dense and of a peculiar smell, bedewed the surface. I recommended his being bled, which was done in the erect posture to fainting; on recovering from which he expressed himself as much easier, and thought he could move his jaw with more freedom. The blood exhibited no inflammatory appearance, but the crassamentum seemed rather loose in its texture. A tobacco cataplasm was ordered to be applied to the throat, a turpentine injection to be administered immediately, and three grains of calomel to be taken every four hours. We left him, then, with more encouraging views.

Nine, p.m. At this visit there was an aggravation of all the symptoms; the whole system was engaged in the disease; the patient was hurried in his whole manner; the pulse greatly accelerated; there were twitches in the muscles of the arms; the head was bent backward, and something like opisthotonos had come on. I now considered the patient in imminent danger, and in my own mind had quite given him up. However, as the bowels had not been sufficiently acted on this day, I prescribed the following:—

℞ *Elaterium*, gr. j;
Croton oil, gtt. ij;
Mucilage, 3ij. M. To be taken immediately, and followed at the end of two hours by an anodyne injection, and by the following draught:—

℞ *Solution of muriate of morphia*, gtt. xv;
Hydrocyanic acid, gtt. ij;
Mucilage, 3ij. M.

The next morning, at eight, a.m., I was sent for in great haste; the patient had passed an agonising night, with violent spasms, so that he could scarcely be kept in bed, though he had, after the anodyne, slept a little, at intervals; he was almost pulseless, with clammy skin and cold extremities; still he was perfectly sensible, and replied to my questions satisfactorily. He was presently seized with a spasm, which seemed to act on every muscle in his body, for he slid with considerable force from the bed, and stood erect on the floor, as immovable, and feeling like a marble statue. Several minutes elapsed before he could be lifted into his bed, after which sudden collapse came on, and in an hour after I entered the room he ceased to breathe. Thus, in forty-eight hours after medical aid had been called in, fell one of the most amiable of men, a useful minister and most eloquent preacher. As post-mortem examinations in this disease have not detected, at least, in most of the cases recorded, any lesion of the nerves, and the proposal of such would have been attended with painful feelings to the distressed family, it was not attempted.

How mysterious the disease, and how rapid its course! There is an interesting case published in THE LANCET, for June 26th, 1841, of idiopathic tetanus, which occurred in St. George's Hospital, and which was rather of a more protracted nature than this. I perfectly agree with the reporter of that case, that the pathology of this disease is to be sought for in the field of physiology rather than that of anatomy. Did the disease affect the structure of the nerves, anatomy would then unfold to us the lesion it had inflicted; but as it would seem to consist in a perverted function of the voluntary nerves, the function, with the principle of vitality, vanishes away, whilst the structure, as far as can be observed, remains unimpaired. Is there any difference in the auditory nerve of a deaf man, and of one who has retained the function of hearing till death? Or in the optic nerve of an amaurotic patient, and of one who has preserved his vision to the last? If there be not, these are further instances of loss of function without lesion of structure. We might as well look for traces of thought in the brain, of which it is the acknowledged organ. Epilepsy and chorea furnish instances of the same kind. But how different the course of these diseases from tetanus. The former may exist for years, and are often curable; the latter is rapid in its progress, and all but universally fatal, except it be the trismus nascentium. There are many

cases of hysteria which for a time simulate trismus, with this difference, however—they are accompanied with insensibility. This may continue for a considerable while, and then pass off as if nothing had happened except general languor from the previous excitement. Here, then, are three diseases, viz., epilepsy, chorea, and hysteria, in which the nerves are confessedly involved, and yet how different from the disease under consideration. It is most probable that the trigeminus or fifth pair of nerves, at least its maxillary branches, are chiefly affected in trismus; but why they should be affected only transiently in some instances, and permanently, and for the most part fatally, in another, is past finding out. Whether the trigeminus be affected primarily in trismus, and only secondarily or by sympathy through the ganglionic system in the other diseases, is matter of mere speculation, and I shall therefore not pursue the subject further.

With regard to the treatment of this formidable disease I have nothing new to offer, nor is it probable the *methodus medendi* will be improved until the nature of the disease be better understood; nor is this likely to be the case, since anatomy now seems to have done its best; for we have only to look at Swan's beautiful and splendid delineations, and we may almost say, nothing remains to be done. As to the traumatic species, I shall say nothing. Our military surgical writers, such as M'Grigor, Heunen, Guthrie, &c., candidly confess they cannot help us, and almost with one voice proclaim its intractable nature. As to the idiopathic, I am inclined to the opinion of Dr. Hamilton, on purgatives, that the alimentary canal is most concerned. The three cases he mentions are rather slight attacks, but by directing his attention to the stomach and bowels he was successful in their treatment. In the case of the Rev. J. M. C. there had been previous costiveness, and the bowels were very difficult to be moved, and therefore we did not waste time by trying a great variety of remedies, which might have interfered with the chief object in view; indeed, forty-eight hours did not allow of much variety of treatment. Therefore, purgatives, and purgative enemata, bleeding, blistering, with opium and calomel, all the best antispasmodics, were our chief remedies. The hot bath was not had recourse to, because, in this instance, where it was difficult to keep the patient still, and he was frequently getting in and out of bed, it might have done more harm than good, especially as under the most favourable circumstances it has been of little avail, and some authors have thought it has done harm. On a review of this interesting case, the course pursued, in the present state of our knowledge of therapeutics, was that most likely to have succeeded, and we have only to regret that our efforts have been unavailing.

FURTHER OBSERVATIONS ON TRAUMATIC TETANUS.

To the Editor of THE LANCET.

SIR,—The accompanying remarks form a continuation of those on traumatic tetanus, at page 398 of THE LANCET, for Dec. 18. I have the honour to remain, Sir, your obedient servant,

JAMES B. THOMPSON, A.B., M.D.

33, Upper Gower-street,
Dec. 20, 1841.

The case of Sullivan differs in one material point from cases of traumatic tetanus in general, namely, in the suddenness of the aggravated and fatal symptoms. It is a peculiarity in this disease, well worthy of notice, in a practical point of view, that it does not present itself at the early inflammatory, suppurative, or sloughing stages of a wound or injury, but more frequently at a very remote period, when the part injured may have healed over, and when the surgeon may have considered his patient as convalescent—or if an hospital patient, may be about to discharge him or her. In illustration of this peculiarity in tetanus, I may be permitted to add the following case, which occurred about seven years ago:—

A young man, about nineteen years of age, of nervous temperament, but otherwise good general health, a stable-boy at an hotel, received, while in the act of grooming a horse, a kick in the left knee; the cock of the shoe laid open the capsule of the joint, and lacerated the integuments. Severe inflammatory symptoms supervened, but by active antiphlogistic remedies, and attention to the general constitution, these acute symptoms were subdued, and the wound was healed over in about the fifth week, when it was thought desirable to recommend the patient to go into the country for the benefit of his general health. But just the day but one previous to his intended departure, he complained of being unwell, and rather restless for the few nights before. He now complained of stiffness in the neck, and from this period all the symptoms previously alluded to began to present themselves. He got anodynes with morphia at night. I prefer the muriate of morphia in these cases. Mercury was used, by friction, along the spine, the inside of the thighs, and in the axillæ, with small and frequently-repeated doses of calomel with opium, to prevent its passing off by the bowels, besides its own sedative effect: camphor mixture, with the aromatic spirits of ammonia, occasionally. This treatment was pursued for some ten or twelve days, when the tetanic tendency seemed gradually to disappear. The patient was discharged quite convalescent in about a week after all medicines had ceased to be

given. He did not seem to suffer any inconvenience from the active treatment pursued, as some surgeons seem to suppose such patients always do.

The period at which this affection generally presents itself, varies from a few days to ten, fifteen, and twenty-one days, and from four to six weeks, or even to remoter periods. However, I am disposed to look rather favourably on a case going beyond the third week; at least I am inclined to think that the remoter the period the more mild and modified will be the attack—indeed rarely fatal, if actively treated at first.

As to the causes of this disease, there are a great variety, and some are of a very trivial character. It has been known to occur in a negro from the lash of a whip. Pieces of glass, wood, nails, pins, &c., sticking in the hands or soles of the feet, or under the finger or toe-nails, have produced this affection. The more aggravated exciting causes are, vicissitudes of temperature, injuries or lacerations of nervous or tendinous structures, punctured wounds, irritating substances in the stomach and intestinal canal.

I have seen tetanus in a modified form in a lunatic, proving that affections of the mind predispose to this disease. I have also seen it in persons where the autopsies proved that abnormal depositions, or growths of a bony or cartilaginous structure, gave rise to this affection, particularly when these foreign bodies (if I may be allowed to call them so), by their presence and consequent pressure on the brain and spinal marrow, operated, no doubt, as a proximate cause in the production of the modified tetanic symptoms which exhibited themselves during the lifetime of these patients. As to the mode of treatment, it no doubt must vary according to the circumstances of the case, and the previous history of the patient. It is advisable to remove as early as possible the obvious exciting cause; next to this, I believe that the treatment pursued in the preceding case will be found to be the most generally resorted to, and from what I have seen or read has been found to have been the most successful. Tobacco enemata are recommended, and may no doubt be found useful; but as for the cold bath, or douche, I have seen it prejudicial, and it is always unpleasant to the patient.

Our object should be to allay the generally-excited state of the brain and nervous system; and in carrying this view into effect, we must often commence by exciting, as it were, a new and powerful action, as if to supersede the primary or diseased one. This is, I apprehend, the view with which mercury, tobacco, musk, camphor, and opium, with other active antispasmodics, are so generally recommended. In cases of punctured wounds producing this disease, it is desirable to dilate freely the original injury or puncture; and in cases arising from any local irritation, no time should be lost in severing the communication with the brain and part engaged, as if to arrest the progress of this disease.

As to the use of stimulating or antispasmodic liniments or applications, I have never seen, even in extensive hospital practice, in civil or military departments, any beneficial results; I would rather be inclined to look upon them as worse than useless: for while the surgeon may be getting these ready for use, he might in my mind be much better employed in attending to more salutary and sure remedies, and to what are known to be attended with much more efficacious and successful results, to persons who have suffered from, and had been the subjects of tetanus in any form.

ON THE NERVOUS GANGLIA OF THE UTERUS.

By Robert Lee, M.D., F.R.S.

[Published in the forthcoming volume of the Philosophical Transactions.]

The author, in a paper which was read to the Royal Society on the 12th of December, 1839, had described four great plexuses under the peritoneum of the gravid uterus, having an extensive connection with the hypogastric and spermatic nerves. From their form, colour, general distribution, and resemblance to ganglionic plexuses of nerves, and from their branches actually coalescing with those of the hypogastric and spermatic nerves, he was induced to believe, on first discovering them, that they were ganglionic nervous plexuses, and that they constituted the special nervous system of the uterus. He states in the present paper, that subsequent dissections of the unimpregnated uterus, and of the gravid uterus in the third, fourth, sixth, seventh, and ninth months of pregnancy, have enabled him not only to confirm the accuracy of his former observations, but also to discover the important fact, that there are many large ganglia on the uterine nerves, and on those of the vagina and bladder, which enlarge with the coats, blood-vessels, nerves, and absorbents of the uterus during pregnancy, and which return, after parturition, to their original condition before conception took place. The author next proceeds to describe the two great ganglia situated on the sides of the neck of the uterus, in which the hypogastric and several of the sacral nerves terminate, and which he calls the *hypogastric* or *utero-vesical ganglia*. In the unimpregnated state, they are of an irregular, triangular, or oblong shape, about half an inch in the long diameter; and always consist of grey and white matter, like other ganglia. They are covered by the trunks of the vaginal and vesical arte-

ries and veins; and each ganglion has an artery of considerable size, which enters it near the centre and divides into branches, accompanying the nerves given off from its anterior and inferior borders. From the inner and posterior surface of each of these ganglia, nerves pass off, which anastomose with the hæmorrhoidal nerves, and ramify on the sides of the vagina, and between the vagina and rectum. From the inferior border of each hypogastric ganglion several fasciculi of nerves are given off, which pass down on the sides of the vagina, and enter some large flat ganglia, midway between the os uteri and ostium vaginæ. From these vaginal ganglia innumerable filaments of nerves, on which small flat ganglia are formed, extend to the sphincter, where they are lost in a white dense membranous expansion. From this great web of ganglia and nerves, numerous branches are sent to the sides of the bladder, and enter it around the ureter. All these nerves of the vagina are accompanied with arteries, and they often form complete rings of nerve around the trunks of the great veins.

The author then describes the nerves which are given off from the anterior margin of each hypogastric ganglion, some of which pass on the outside of the ureter, and others on the inside, and meet in front of the ureter in a ganglion, which he calls the *middle vesical ganglion*. There are other two ganglia, he states, formed on these nerves; one between the uterus and ureter, and the other between the ureter and vagina. These he calls *the internal and external vesical ganglia*. Not only is the uterus inclosed within a great ring of nervous matter, which, he says, resembles the œsophageal ganglia in some of the invertebrata; but the trunks of the uterine artery and vein are likewise encircled by a great collar of nervous matter, between which and the hypogastric ganglion several large and some small branches pass.

The author gives the following description of the vesical ganglia. The internal vesical ganglion, which usually has a flattened or long bulbous shape, is formed entirely upon the nerves which pass from the hypogastric ganglion, and run between the uterus and the ureter. It has an artery which passes through its centre. It first gives off a large branch to the ring of nerve or ganglion which surrounds the uterine blood-vessels; it then sends branches to the anterior part of the cervix uteri, and afterwards a great number of small filaments to the muscular coat of the bladder behind, where it is in contact with the uterus; and it then sends forwards a large branch, which terminates in the middle vesical ganglion. This ganglion sends off a great number of large nerves to the bladder. Some of these accompany the arteries, and can be seen ramifying with them upon the whole of the superior part of the organ, even to the fundus. Filaments of these nerves, scarcely visible to the naked eye, are seen in one of the preparations ramifying upon the bundles of muscular fibres, occasionally forming loops and inclosing them, or passing down between them to the strata of fibres below. Some of the smaller branches of the middle vesical ganglion do not accompany the arteries, but are distributed at once to the parts of the bladder around the ureter.

The external vesical ganglion is formed entirely upon the nerves which proceed from the hypogastric ganglion, and pass on the outside of the ureter. This is a small thin ganglion, the branches of which are sent immediately into the muscular coat of the bladder. It usually sends down a long branch to anastomose with the nerves issuing from one of the vaginal ganglia.

From the inner surface of each hypogastric ganglion, numerous small, white, soft nerves pass to the uterus, some of which ramify upon the muscular coat about the cervix, and others spread out under the peritoneum to coalesce with the great ganglia and plexuses situated on the posterior and anterior surfaces of that organ. Large branches also go off from the inner surface of the ganglion to the nerves surrounding the blood-vessels of the uterus, which they accompany in all their ramifications through at its muscular coat.

This paper is illustrated by two drawings, in which the hypogastric, vaginal, vesical, and uterine ganglia are delineated in the fourth month of pregnancy, and also the plexuses of nerves on the anterior surface of the uterus.

From an examination with the microscope of portions of the plexuses under the peritoneum of a gravid uterus in the ninth month, which had long been immersed in rectified spirit, Professor Owen and Mr. Kiernan inferred that they were not nervous plexuses, but bands of elastic tissue, gelatinous tissue, or cellular membrane.

The author concludes his paper with a letter from John Dalrymple, Esq., containing the results of the observations he had made with the microscope on the uterine nerves in the recent state. Filaments of the nerves which surrounded the ureter, and which were situated upon the body of the uterus, were submitted to the microscope. The instrument employed was a very powerful object-glass, whose focus was the eighth of an inch, made by Ross. Mr. Dalrymple found that it was impossible, even with the most careful dissection, to detach any filament of nerve without including a quantity of cellular and elastic tissue; so that although the tubular portion indicating the nerve was distinct, yet it was surrounded by innumerable extremely minute threads, coiled and contorted, such as those which constitute the component of elastic tissue, and the ultimate element of cellular membrane.

Under slight pressure, however, the tube was plainly discernible, and was found to contain granular matter, not uniformly distributed, but collected in minute masses at intervals. Small blood-vessels were also here and there seen, with blood-discs within them, which served to indicate the difference between the nervous and vascular tubes, and thus to avoid the possibility of error. Being, however, aware that some of the most distinguished foreign microscopical anatomists had differed as to what was the real characteristic of the nerves of the sympathetic system, and feeling, from this discordance of opinion, that there was no absolute test, or, at least, none which was not open to cavil, Mr. Dalrymple thought of making a comparison of the uterine nerves with those that undeniably belonged to the ganglionic system. He, therefore, traced some nerves on the surface of the stomach up to the great ganglion that gave them origin; and he selected some also from the small intestine. These he submitted to the same microscopical power, and under the same circumstances of light, and pressure, and medium. In all of these he observed the tubular part filled with granular matter, and similarly collected in minute masses. He also observed that each tube was surrounded by the minute serpentine threads before described. In fact, so closely did they agree in every particular with the appearances presented by the uterine nerves, that it would have been impossible to distinguish the one from the other.

MIDDLESEX HOSPITAL.

(Continuation of the Case of Beetham from p. 329.)

DEATH FROM ABSCESS OF THE BRAIN.

This patient, who at our last report, on November 7, was proceeding favourably, continued to do so until the 18th, when on the visit he was found in bed complaining of face and headach, referring the pain chiefly to the left side of the nose and brow, and which he says he has felt slightly for the last two days, but which last night kept him awake. The wound is healthy and cicatrising; his pulse soft and not frequent, 66; his tongue is clean and moist, and his bowels act regularly. To have twenty minims of tincture of opium in camphor mixture, at bed-time.

19. The pain continues; has had no rigor; his pulse is tranquil; the skin cool; he keeps his head constantly to the pillow. To have four grains of calomel directly, and a senna draught to-morrow morning. Omit the meat and wine.

21. Yesterday he referred the pain chiefly to the right cheek and side of the nose; to-day he appears dull, and does not complain of pain; but he is slow in answering, and sometimes stops and continues irrelevantly to the subject; breath fœtid. To have five grains of mercury with chalk directly, and in four hours a compound senna draught.

24. The dulness has continued more or less since last report, and is rather increased to-day; his pulse, however, has not exceeded 66, and is small and soft; the left pupil is more dilated than the right, and the motions of the right half of the body are somewhat impaired.

25. At five this morning, when upon the close stool, he had a sort of fit. The nurse states that his limbs were stretched out and rigid. After this the stupor increased, and by the middle of the day he was completely comatose, with partial palsy of the right arm and leg, but without any stertor in breathing. There was no unhealthy appearance at the wound; no puffiness; the scalp was adherent; the granulations and discharge healthy. Mr. Arnott, however, again exposed the bone, by dividing the scalp and turning back the flaps. Some loose particles of bone were removed, and the adhesions between the granulations from the dura mater and bone being broken down, the probe was passed freely under the edge of the opening in the skull to give exit to matter, if any existed, but none was discharged. A grooved needle was then passed, at two places, through the dura mater, but no pus was discovered. The patient gave no indication of suffering during these proceedings; his pulse, however, became irregular in frequency and force.

Ten, p.m. He was perfectly comatose; his breathing hurried, and rather laboured; his pulse 110, large, but without power.

26. His breathing got more and more laborious, was ultimately accompanied by stertor, and he died at two, a.m.

After-death Appearances.

The body was examined twelve hours after death. On raising the skull-cap no pus was found between the dura mater and bone, nor was there any in the vicinity of the wound made by Hey's saw, in removing the depressed bone. The dura mater had everywhere a natural appearance, with the exception of the part corresponding to the opening in the skull, which was covered with granulations which, during life, had filled that opening, and had inosculated with those of the scalp, and those proceeding from the edge of the bone. There was neither effusion on, nor opacity of, the arachnoid. The brain externally appeared healthy, and on dividing its substance at the part corresponding to the opening in the skull, no unnatural condition was found to exist. But one and a half or two inches below this was an abscess, containing about an ounce and a half of rather thin pus. This abscess, whose interior was lined by a layer of greyish pulpy lymph, was

situated in the medullary substance of the hemisphere, between the posterior cornu of the lateral ventricle and the outer surface of the hemisphere. The substance of the brain around it was not as white as natural, but of a pale yellowish tinge, and somewhat softened.

Mr. Arnott remarked, that the propriety of a guarded prognosis in all cases of severe injury of the head, more especially those requiring operation, however flattering appearances be, was but too well shown by this case. After the first week from the accident, the patient proceeded, during the next three, in the most promising manner towards recovery; nothing occurred during this period, either in the condition of the wound or the general health, to lead to other expectation than that of a favourable result, when, on the twenty-eighth day, the first of these symptoms showed themselves, which in a week ended in death. The case exhibited, also, in a striking manner, the insidious and obscure way in which abscess of the brain sometimes indicated its approach and existence. The first symptoms were faceach, headach, and then stupor; but these were neither preceded nor accompanied by rigor, heat of skin, or frequency of pulse, or any change in the state of the wound, which continued advancing towards healing. That effusion was taking place, was evident by the gradually increasing dulness; and unless exit was given to the fluid, it was likely to prove fatal. Under this impression, although there was no puffiness of the scalp, the adhesion of the latter to the granulations from the dura mater was divided, and the probe passed under the edge of the bone in case matter had there existed: but none being discovered, the grooved needle was passed through the dura mater in case matter might be below this membrane, but without any satisfactory result; the abscess was seated at too great a distance and depth in the brain to be reached.

UNIVERSITY COLLEGE HOSPITAL.

CHANCRE—BUBO—WARTS ON THE PENIS—VERRUCÆ CIRCA ANUM—ULCERS IN THE CLEFT BETWEEN THE TOES.

J. M., aged 32, labourer, was admitted an out-patient Aug. 10, 1841, under the care of Mr. Morton. A year ago this man contracted a primary chancre on the corona glandis, for which he underwent a mercurjal course; the sore being touched at the same time with the nitrate of silver. Under this treatment the chancre healed slowly. He had no bubo at this time. About six months afterwards, large, soft, warty excrescences made their appearance about the margin of the anus. Several warts also commenced to grow at the same time upon the glans penis and under-surface of the prepuce. A month after the commencement of these symptoms, a small ulceration, "beginning like a blister, which soon festered," broke out on the site of the original chancre, and has remained open ever since without any change in its character, which is that of a simple ulcer. He has not taken any medicine for these secondary affections, nor used any other local remedies besides a common poultice to the sores. The sores between the toes are excessively painful and tender when touched; their surface is excavated and covered with a greyish-coloured pulpy substance, very much resembling a slough; their edges are sharp and somewhat elevated. There is no appearance of any attempt at the formation of granulations upon their surface. The sores upon the toes were ordered to be touched freely with the undiluted nitric acid; while the verrucæ on the penis, and around the margin of the anus, were rubbed with a pencil of the lunar caustic.

19. The verrucæ on the penis and around the anus have almost disappeared under the beneficial influence of the lunar caustic, which has been applied every second or third day. The sore on the corona glandis has healed under the local application of the sulphate of copper. The ulcers between the toes are almost well; but as what yet remains of them presents the same ashy, aphthous-looking crust, the nitric acid is ordered to be again applied to them.

26. Is very much improved in his general health, while at the same time the verrucæ have been completely removed. The sores between the toes are almost well. The sore on the corona glandis is completely cicatrised. He was now ordered to take two ounces of decoction of sarsa, with four grains of iodide of potassium, three times a-day.

Sept. 10. Discharged, quite well.

COMPOUND DISLOCATION OF THE THUMB—REDUCTION—CURE.

John Williams, aged 18, was admitted an out-patient of the hospital, under Mr. Morton, on the 17th of September, 1841, on account of a compound dislocation of the first phalanx of the thumb. The articular extremity of the first phalanx projected completely through the wound which was situated on the ulnar side of the joint; the end of the bone was very easily reduced. The accident was caused by accidentally thrusting his hand with great violence against a wall. The bone being replaced, the end of the bone was retained by several slips of plaster neatly applied, and a small splint of pasteboard was placed underneath the whole length of the finger, so as to support the bones composing it; a bandage was then applied over the whole. To have five grains of calomel and fifteen of jalap directly: to be placed on low diet, and cold lotion to be applied to the part.

25. This man presented himself at the visit of to-day; but as the parts looked well, the plasters and splint were allowed to remain, while the bandage was removed.

30. Doing very well; wound is almost healed; bandage removed. An abscess having formed upon the under-surface of the ball of the thumb, it was opened, and its contents discharged.

Oct. 4. Wound perfectly healed. To use passive motion of the joint.

20. The motions of the joint are preserved. Discharged, quite cured.

IRITIS OCCURRING AFTER CURE OF PRIMARY SORES BY MERCURY.

T. K., aged 47, was admitted as an out-patient on the 20th of October, 1841, on account of a severe attack of iritis in the left eye, which commenced about a week since. Some months ago he contracted primary venereal sores on the penis, which healed under a free course of mercury. His present complaint was induced by exposure to wet and cold, when the eye became very red and painful, with great dulness of vision; the iris of a very dull hue, being of a reddish-brown colour instead of a clear blue, as in the sound eye; pupil dilates and contracts very sluggishly, and its circumference is very irregular; vascular zone of pink-coloured vessels radiating from the external margin of the cornea; great pain of the forehead and temple, which is much worse at night. Apply eight leeches to the angle of the nose; a blister behind the ears. Let extract of belladonna be rubbed on the eyelids. As his mouth is very sore, in consequence of his having taken two dozen pills in three days, the following medicine was ordered for him: two ounces of decoction of sarsa and four grains of iodide of potassium, three times a-day.

23. Is much relieved by the leeches, having bled freely. To take an opening draught directly: continue the mixture.

26. Iris appears to be much clearer; but the pupil is irregular, presenting a remarkable indentation at its inner border. Increase the iodide in the decoction of sarsa to six grains.

30. The circular margin of the pupil is much more regular in its form than it was before; motions of iris much more active; a little dimness of vision still remains, with some vascularity of the sclerotic.

Nov. 2. Discharged, cured.

PARASITIC LEECHES
IN THE BUCCAL CAVITY OF ANIMALS.

To the Editor of THE LANCET.

SIR,—In your Journal of last week, I observe that specimens of the African leech were presented to the Academy of Sciences in Paris by M. Guyon, as if they had been previously unknown. I was not aware that the finding of leeches adhering to the inside of the mouths of cattle in Africa was anything uncommon. In the years 1803, 4, and 5, whilst surgeon of H. M. S. Cameleon, at Oran and other ports in the Mediterranean, we often received African bullocks for the ship's company, and as often did I obtain a small supply of leeches from their mouths. I never found them alive *beyond* the fauces, their usual seat was under the tongue; but I have found them dead in the first stomach, where they had apparently been destroyed by the secretion of that viscus.

M. Guyon mentions having applied them to fowls and rabbits: if by that he conceives that they may not with safety be applied to mankind, I can assure him that I have often so applied them without any bad effects; and have found the quantity of blood taken by them larger, in proportion to their size, than that drawn by the common leech. They are, I think, taken into the mouths of the cattle while drinking from stagnant ponds; but I have also found leeches (a different variety) in the mouths of cattle embarked from Portugal and some parts of Italy, also at Nyeborg in Denmark, &c. &c. The common method of catching leeches in the Danish islands, which we adopted, was to fee the ships' boys to wade into the ponds with their legs and feet bare, whence they would soon return with leeches adhering to them. M. Guyon says that these leeches "enter in a filiform state the *air* passages of man;" I suspect they were received, when young and very small, into the mouth, whilst the men were probably drinking the water of stagnant ponds—not an unusual practice of Europeans in Northern Africa, where running water is in many places a scarce commodity. I remain, Sir, yours, &c.

WILLIAM WILSON, Surgeon R. N.
Charlotte-street, Fitzroy-square,
Dec. 21, 1841.

P. S.—While on the subject of leeches, I may mention that whilst leeches were being applied to the nares of a little patient of mine about a month ago, one drew itself into the nose, and was probably swallowed, as it has never since been found; however, no bad effects followed. Would a thread run through the hinder part previous to application have prevented this occurrence? that is, would they have acted if transfixed by a ligature?

CHINESE MIDWIFERY.

SEE YEN TZE says, when the woman is about to be delivered, and she perceives within the body a turning or moving, she ought immediately to lie down quite straight, with the face looking upwards, until the fœtus has turned its body and comes down. When the pains come on frequently, grasp the joints of the woman's middle finger, and if you feel a distinct pulsation in the first joint then let her go to the tub, and she will be immediately delivered.—*Dublin Journal.*

INQUEST IN MIDDLESEX
(HELD AT BRENTFORD),
ON A CHILD, WHO DIED WHILE UNDER THE TREATMENT
OF
A PRESCRIBING DRUGGIST.

NOTICE having been given to Mr. WAKLEY, coroner for Middlesex, that *Edward Willet*, aged 27 months, the son of William and Ann Willet, residing at No. 3, Zion-row, Brentford-end, in the parish of Isleworth, had died at that place, "under suspicious circumstances," and that the authorities in the town were desirous that an inquest on the body should be held, a jury was summoned to meet on Saturday, the 18th of December, 1841, at the Half-moon, Brentford-end; and an order was sent by the Coroner to Mr. Bonney, surgeon, directing him previously to make a medical examination of the body, and attend the inquest to report its condition. But at the assembling of the court the Coroner was informed that the mother of the child had declined to permit the autopsy. The child had been attended medically by Mr. Squire, a druggist, of Brentford, with a supposition, on the part of the parent, that it was labouring under croup; and, under the expectation of Mr. Squire that any examination he had the power of forbidding the surgeon to make, unless he himself (Mr. Squire) "and other medical gentlemen," as he subsequently said, were present, Mr. Bonney had been unable to fulfil the directions of the Coroner. The surgeon, however, being now assured that he could act peremptorily on the order, and the mother of the impropriety of her objection, an adjournment of the court took place to Wednesday, Dec. 22, and leave was given to Mr. Squire to be present at the inspection (but not in the character of a medical man), and have there with him any medical friend he might desire. Mr. Farrell, surgeon to the union of the parish, also attended it at the wish of the mother.

On the 22nd the court reassembled. Only one witness was present at a time at the inquest. The mother,

ANN WILLET, being sworn, said, that the child died on Wednesday, Dec. 15, at home, and her deposition ran as follows:—Deceased being taken poorly, with rather a "croupical cough," which she did not think of any consequence, she, on Monday evening, Dec. 13, as she was passing the shop of Mr. Squire, a druggist, of Brentford, went in and asked for a penny powder to give to deceased, whom she had with her. He replied that he had no penny powders, but he had three-halfpenny powders. She said to him that deceased had a cold, and she thought a powder would relieve his chest. Witness had a powder of Mr. Squire, which she gave to deceased immediately she got home, and she considered that it relieved him very much, by lessening the little fever that he had. It made the child vomit in half an hour, and he also had a stool. Mr. Squire told her that it would probably make deceased vomit, and that she must not be alarmed at that. He also advised her to put his feet into warm water that evening, which she did. Deceased slept until half-past two o'clock that night, and then he became restless. At twelve o'clock next day (Tuesday, Dec. 14th), as deceased still had the croupy cough, she sent Mrs. Brown, a friend, for another powder from Mr. Squire's. Mrs. Brown brought one back, like the first, and it was given to the deceased at once. That powder did not make deceased sick, but he had a motion with it, and kept about, playing with the other children, until eight o'clock in the evening. He then dozed until ten o'clock, p.m., when he went off in a strong fit, whereupon witness put a mustard, oatmeal, and vinegar poultice to his throat, which relieved him. She did not send for any medicine then, but put his feet into warm water again. He was much convulsed, and was insensible for half an hour. Witness sent for no medical man to see the child, notwithstanding the weakness of the child after the fit, as she thought it was merely that the poultice was too strong, and that the child was faint after it. At half-past one o'clock that night (that is, on Wednesday morning, Dec. 15) the child had another fit for half an hour, more powerful than the first. Nor did she then get medical advice for him, and he had a fit every half-hour after that until half-past six on Wednesday morning; but at seven o'clock, a.m., she sent for Mr. Squire, who came at once, nearly half undressed, from his haste to attend the child, when he told her that he was afraid that she had kept deceased too long without medical aid, and that he feared he could then do him no good. However, he went home for a powder, and said he would also send three leeches, and that the child must be put into warm water. Mr. Squire came again at ten minutes past eleven on Wednesday morning, for which witness was very much obliged to him. He had told her that the leeches were to be put on the throat, just about over where the inflammation might be. The child's neck was not at all swollen. Mr. Squire did not feel the pulse of the child, she believes, when he came, but he did in his shop on the Monday evening, and said that deceased had no fever then, which witness thought it had not, or only very little. If it had been his own child Mr. Squire could not have attended it more carefully. No person but Mr. Squire attended the child medically. He desired witness to keep the child warm after the bath, in a blanket. Mr. Squire keeps an open shop, as a chemist and druggist, in

Brentford, and has many patients apply to him for medical aid. Mr. Squire has not yet sent in his bill for his attendance on deceased. For the powders she paid at the time. Deceased was run over five months ago by a light basket chaise, being knocked down by the horse. The wheel did not go over him. He was poorly then, for a few days, though apparently not much hurt, and witness considered him to have never been so well after that accident as he was before.

Elizabeth Peters, a widow, lodging in the same house as Mrs. Willet, working at the Duke of Northumberland's, saw deceased from half-past nine on Tuesday evening until nearly eleven that night, in a fit. Between six and seven on Wednesday morning she told Mrs. Willet that she thought deceased was dying, and Mrs. Willet said she would send for some one to see deceased.

Harriet Brown, wife of Archibald Brown, a nurseryman, living next door to Mrs. Willet. On Monday evening, Dec. 13, between six and seven o'clock, she saw deceased, who had a bad cough, and was making a queer noise in his throat. She observed to Mrs. Willet what a dreadful cold and sore throat deceased had, it was so hoarse, and made such a funny noise in breathing. At twelve o'clock on Tuesday witness was asked by Mrs. Willet to go to Mr. Squire's for a brown powder for a child. Witness went, but did not say to Mr. Squire who it was for, or what it was for. Witness paid twopence for it. Mr. Squire did not ask witness any question on the subject. Witness took it to Mrs. Willet. On Wednesday morning, at seven o'clock, witness was at Mrs. Willet's, when Mr. Squire came, half dressed, and said he did not think deceased would live long. He added, "put the child in a warm bath, and I will send a powder for him, and three leeches, which you must put on the throat" at such a point. Mr. Squire came again at ten or eleven o'clock, of his own accord, and said deceased would not live many minutes; and at twelve the child died. Witness did not hear Mr. Squire advise the mother to have another medical man, or any one else, called in. If he had, witness would have heard it.

Francis Augustus Burdett Bonney, of Brentford, and holds the diploma of the College of Surgeons of Edinburgh, and the licence of the Apothecaries' Company of London. Witness has examined the body of deceased by order of the Coroner, with Mr. Farrell and Mr. Radcliffe, surgeons, and Mr. Squire, druggist, all of New Brentford, and a friend of Mr. Squire, whom Mr. Squire represented as being a legally-qualified medical practitioner, but whose name witness does not know. Witness found the death of deceased to have been caused by inflammation of the larger air-passages leading to the lungs. The inflammation did not extend higher than the trachea. Witness does not consider that the child died from the disease called croup. The inflammation extended two inches down the bronchia, beyond the bifurcation. There was, apparently, no difference of opinion amongst those who were present as to the cause of death. The lungs crepitated well in all parts. Witness would think that the active disease producing the inflammation had existed not many days. It was a disease that was easily discoverable by a competent medical practitioner. The treatment, in a child, would, according to circumstances, be the removing of a little blood by two or three leeches applied to the integuments over the breast-bone, and by fomentations, and by giving antimonial medicines, perhaps mercury, according to the symptoms, an emetic, and perhaps a purgative. The disease of the child was not the first stage of croup, but the second stage of bronchitis.

John Farrell, holds the diploma of the College of Surgeons of London, and the licence of the Apothecaries' Company of London. The post-mortem examination of deceased disclosed inflammation of the lining membrane of the bronchial tubes, extending from the glottis, through the trachea and the bronchial tubes, into the lungs. The greater inflammation was in the upper part of the trachea. There was no effusion, but an increase of mucus: nor any false membrane. The brain was perfectly free from disease. Witness would have treated such a disease by bleeding, local bleeding by leeches, in such a case as this, probably, and strictly antiphlogistic means. The patient should be kept in an equable, moderated temperature, and action on the skin sustained by warm baths and sudorifics. The antiphlogistic medicines which witness would have given are none of them of a brown colour.

William Squire, of New Brentford, said that he was a chemist and druggist, and had no other occupation.

The Coroner here informed Mr. Squire that it had been proved in evidence that he had been attending the child as a medical practitioner; consequently, he now inquired of Mr. Squire whether he possessed the licence of the Apothecaries' Company. The Coroner at the same time informed Mr. Squire that he was not bound to answer the question.

Mr. Squire declined saying whether he held the licence of the Apothecaries' Company of London.

[The Coroner, upon the refusal of the witness to answer the question relating to the qualification of witness to practise medicine generally, declined to examine him any further.]

Theodore Parrett, residing, at present, on a visit with Mr. Squire, living, at home, at No. 1, Buckingham-place, Dover-road,

says, he is a member of the Royal College of Surgeons, and a licentiate of Apothecaries' Hall, London. Witness was present at the post-mortem examination of the deceased, and saw that the cause of death was extremely violent inflammation of the larynx, the trachea, and the bronchial tubes, descending as far as the upper lobes of the lungs. The treatment in such a case, when first seen, would be the antiphlogistic. Bleeding, warm baths, emetics, calomel, in two or three-grain doses, combined with antimonials, every two or three hours, and counter-irritants should be employed. The medicines above-named are all white. The cause of the inflammation might have been cold. It is a very fatal disease, unless checked in an early stage by proper remedies.

After some remarks of the CORONER on the amenability of persons who practise medicine as apothecaries, to the law which subjects them to a penalty of 20*l.* for each offence, the jury returned a verdict, that "Edward Willet died a natural death, from inflammation of the air-passages of the throat and lungs."

MUSCULAR CICATRIX AFTER THE OPERATION OF STRABISMOTOMY, ACCORDING TO M. BOUVIER'S DISSECTION.—The patient died of consumption about three months after the cure of the strabismus. The disease was in the right eye, and divergent. "The rectus externus of the eye, which had been perfectly divided a few lines distant from its insertion in the sclerotic, adheres anew to this membrane by a fine cellulo-fibrous production, fixed about a centimetre behind its normal place of attachment, and quite analogous to the bands of new formation which reunite the muscle to the eye, according to the experiments of Amussat and L. Boyer upon horses. The attachment of this aponeurosis to the eye describes a curve with an anterior concavity. The middle part has become adherent to the sheath of the inferior oblique, near the ocular termination of this muscle. Its superior extremity is less prolonged forward than the inferior, from which arises a filament apparently tendinous, which extends nearly as far as the old attachment of the muscle. This disposition, which one might attribute to the fact that the inferior edge of the muscle may have escaped the section, appears rather due to the preservation of the ocular fascia to a greater extent below than above; for a decided line of separation divides the fleshy body in its entire height from the new aponeurosis, and the muscular fibres are all equally retracted, which could not have taken place if some had remained intact. The anterior end of the muscle has become atrophied; no distinct trace of it remains, although it was very apparent after the operation. The division of the conjunctiva had left no visible cicatrix."—*Bulletin de l'Academie.*

THE LANCET.

London, Saturday, January 1, 1842.

THE Council of the Statistical Society has, we understand, appointed a "Committee of Hospital Statistics," to consider the best means of collecting facts that will be susceptible of numerical analysis on an uniform plan, in periodical returns made from the various sanatory institutions of the country. Something of this kind has long been wanted, and its utility universally felt. Physicians and surgeons perceive that, in addition to the handicraft part of physic, there is, as in other departments of philosophy, a wide field for scientific generalisation, founded upon systematic observation. The time is, therefore, ripe for some such undertaking as that to which the Statistical Society has called the attention of the profession. The Committee has invited the co-operation of the officers of the London hospitals; and it is expected that a meeting on the subject will take place early in January, when the matter will be discussed in all its bearings. As a preliminary step, it is proposed, with the permission of the authorities, to enumerate (on January 8, 1842,) all the patients in the following hospitals—St. George's, the Westminster, the Charing-Cross, the Middlesex, University College, King's College, St. Bartholomew's, the London, Guy's, St. Thomas's, the Small-Pox, the Fever, and the Lock. The age, sex, occupation, and disease, and the duration of the disease, prior and subsequent to admission, are to be distinguished in schedules, printed for the purpose by the Society; and the enumeration is proposed to be effected by gentlemen nominated by the medical officers. It is believed that the numbering can be effected with comparatively little trouble, and yet be rendered sufficiently accurate, by taking the list of patients in the hospitals on the one day, visiting each individual, verifying the facts, and consulting the medical attendant on any

difficulty that may arise. In pursuance of the plan, abstracts of the returns, in well-considered forms, will be made, under the direction of the joint committee of the Society and the medical officers of the hospitals.

We wish this project, as well as every other calculated to improve medical science, success; and we have the satisfaction of believing that THE LANCET has prepared the way for it, as well as for other useful inquiries in hospitals, whose doors were formerly closed against inquiry of every kind. Such a proposal as has been referred to above would have startled many of the big-wigged and gold-caned gentlemen of the "good old school" out of their propriety, and have been regarded as the sure indication of some deep-laid conspiracy against their peace or reputation—some contrivance for surreptitiously seizing the secrets of their pharmacy, or for exposing the quackery of their pretensions. Treasurers and jobbing governors would have been in arms. This is much altered now. We should not be surprised if the Committee of the Statistical Society obtained, instead of opposition, the active and intelligent co-operation of all the most enlightened men connected with our public institutions.

As it is desirable that the provincial hospitals should not remain behind those in the metropolis—and the same method of investigation is strictly applicable to lunatic asylums, to all public sanatory institutions and sick-clubs, and, what is still more important, to *private practice*,—we shall explain briefly its nature, and the kind of results likely to be obtained from its general application.

In vital statistics two kinds of operations have to be performed, and two classes of facts have to be attended to. The two operations are represented, on a large and simple scale, by the Census, and the Registry of Deaths. By the census, the number of the *living* is determined; by the registration, the number of *deaths* occurring in a given time. The rate of mortality is derived from a comparison of the two series of facts. In a numerous nation, where the fluctuations are slight, it is sufficient to take the census every five years. Monthly musters do for an army or a club, and quarterly enumerations are all that is absolutely required for the London hospitals, taken collectively. The enumerations must vary with the circumstances, and be frequent in proportion to the rapidity of the changes which the body of individuals undergoes; but they must be taken at equal intervals of time, as the object always is to ascertain the *average number* of persons of each sex and age, suffering from each disease, &c.

The census, or enumeration, then, is the first thing to be effected. If this be done accurately on January 8, 1842, it will show the *number of males and females* in the London hospitals; the numbers between the *ages* of 5—10, 10—15, 15—20, &c.; the number of each different kind of *occupation* (servants, labourers, &c.); and the number of persons labouring under *consumption*, *rheumatism*, *cancer*, *fever*, the consequences of *compound fractures*, &c. &c. Now if this were taken for *one* hospital only, it would be almost useless: no deduction could be drawn from the small numbers; but the matter will be different when *all* the London hospitals are included in the survey.

It is right to begin with public institutions. They should set the example; but let us remind our friends, the General Practitioners of the kingdom, that if one hundred of them would enumerate all the patients on their books on January 8,—repeat the task quarterly, and publish abstracts of the aggregate results,—they would contribute as many and important facts to medical science, as all the London hospitals put together can furnish.

The second class of facts must be derived from the registers, which must exhibit the nature and the results of every case treated during the year 1842, for example. This would exhibit the *recoveries* and *deaths* of *males* and *females*; the recoveries and deaths at the *ages* of 10—15, 15—20, &c. &c., corresponding with the ages in the abstracts of the enumerations, the recoveries, and the deaths from each

disease, and in each *period* of each disease. The slightest reflection must convince any one, that the combination of the two series of facts will lead the way to an immense number of important inductions.

THE last Number of this Journal contained two cases of death, in which chemists and druggists were more or less directly implicated. It is painful, if we regard the sufferings of surviving relatives, to have to record, week after week, such painful illustrations of the truth of the principles which we have inculcated. On the other hand, it is satisfactory to perceive that the effects of the murderous practices of chemists and druggists can NO longer be concealed.

In one case the death of a child was *very probably* the effect of a narcotic ignorantly prescribed "to ease the bowels," by a Langport druggist. The other, a case of pneumonia ending in hepatisation, and complicated by effusion into the pericardium, was treated with inefficient palliatives and tonics. The cases speak for themselves; but at Cheltenham two or three circumstances were accidentally elicited, which require explanation. Mr. ROBERTS, a chemist of the town, left a *prescription* on the Tuesday at the patient's house that Dr. BOISRAGON *might read it, to see that the dying man had been "properly treated."* Now this, we think, sounds singularly enough. It is strange that Mr. ROBERTS should have had the confidence—perhaps the impudence would be the proper words—to imagine that he could, under any circumstances, treat any patient properly. It is passing strange that he should have ventured to appeal so confidently to Dr. BOISRAGON, thereby implying that the learned X-president could be counted on in an emergency to wink at the fatal errors of chemists who recommend him patients. It bears a most serious aspect. We are unwilling to believe that Dr. BOISRAGON, or any other physician in Cheltenham, plays into the hands of the practising chemists of the place. White-washing these gentry is, like painting sepulchres, a degrading as well as a melancholy office, in which even a slap-dashing doctor should never indulge. We shall be glad to give Dr. BOISRAGON an opportunity of exonerating himself from the implication apparently contained in the evidence of MRS. LAWRENCE and MR. ROBERTS, of countenancing ignorant persons in their wicked tamperings with the lives of his fellow-townsmen.

THE profession (not that, perhaps, of the *law*, but certainly that of *medicine*,) will learn with the highest gratification that another advance has been made in the question of Medical Coroners, by the election of MR. HENRY CHURTON, surgeon, of Chester, as Coroner for the southern division of the county of Chester. The polling took place on Monday and Tuesday last, Dec. 27 and 28, and at the close stood thus:—

For the medical candidate 1515
For the attorney 1345

Giving Mr. CHURTON a majority of 170 over his opponent, Mr. MASSEY, notwithstanding the fact—so we are assured—that by purchase, the interest of two other candidates, one an attorney and the other a land-surveyor (as reasonably might they have been a weaver and a breeches-maker), became united with that of Mr. MASSEY, who had the additional advantage of being a nephew of the late Coroner, and of a three weeks prior start in the contest. These facts speak volumes for the competence of Mr. CHURTON, the discretion with which he employed his claims and resources, and the intelligence of the electors. The examples are admirable, and must be followed, as vacancies occur, until attorneys, and all other non-medical candidates for a medical office, become ashamed to press the demands of ignorance upon an enlightened public. We had last week prepared a brief notice of the approaching contest, the result of which shows that the confidence of the friends of Mr. CHURTON in the success of that gentleman was fully justified, but the intelligence on the subject reached us too late to find a place for it, as

was designed, in the current number of THE LANCET.

We cordially congratulate both Mr. CHURTON and the county on their victory. There must even be many members of the profession of the law who, abandoning prejudices and undue feelings of self-interest, would rejoice at the new advantage gained to that important institution, the Coroner's Court, by this election.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 14, 1841.

Dr. WILLIAMS, President.

On the relation between the Symmetry and the Diseases of the Body. By JAMES PAGET, Esq., Demonstrator of Morbid Anatomy in St. Bartholomew's Hospital.

THE author relates several cases in which morbid changes exactly similar in nature and extent were found on corresponding spots on the opposite sides of the body; and argues from these and from the more numerous instances in which there exists a general similarity in the signs and results of disease on the two sides of the body, or on corresponding spots in each, that the law of constitutional diseases is to affect both sides of the body equally and simultaneously. He urges that although the exceptions to this law are more numerous than the observances of it, yet since each of the latter involves a coincidence of two very delicate processes, such as could not often happen by chance, a few facts affirmative of the law should have more force than a great number which seem to negative it.

In explanation of symmetrical diseases, he supposes that some depend on a disorder of the blood or nervous system affecting the nutrition of every part of the body; others, on such a disorder of one or the other, as affects their relation to the nutrition of only one tissue or pair of organs, or of only symmetrical spots previously altered in a tissue; and that others, which are connected with metastasis, depend on a reflection of anormal nervous excitement at the nervous centres, from one set of nerves to those of the corresponding part on the other side of the body.

On Diseases which affect Corresponding Parts of the Body in a Symmetrical Manner. By WILLIAM BUDD, M.D., Bristol. Communicated by Dr. BUDD.

The writer begins by stating that his attention was first called to this subject by several cases of rheumatic fever, in which, as the disease passed into a chronic state, corresponding parts of the limbs became affected *in pairs*, in such manner that the affections of the limbs of one side repeated itself in those of the other, not merely with a general correspondence of situation, but joint for joint, bursa for bursa, sheath for sheath.

These facts occurred to the writer in 1836 at the Middlesex Hospital. Soon after this, having seen in Bizot's announcement that the atheromatous deposits of arteries are likewise distributed in corresponding arteries in a perfectly symmetrical manner, Dr. Budd began to look out for instances of the same fact in other diseases. These soon came before him in great number and variety; and in the course of a short time he was enabled to ascertain that in most diseases of the skin, many diseases of the joints, in the disease of the arteries just alluded to; in diseases of the eyes, ears, and many other structures; in fact, that in a great number and variety of diseases of constitutional origin, the lesions peculiar to each affect corresponding parts of the body with alterations, whose likeness in form and situation is often of the most singular exactness. Particular examples of this taken from a considerable variety of diseases were exhibited in a series of casts and drawings laid before the society in illustration of this paper. As this fact repeats itself in diseases differing so widely in many other important respects, and especially in the aspect of their lesions, and the nature of the textures involved, the writer infers that it is a fact of high order, and one which is justly entitled to the rank of a *law*.

In order to arrive at the true interpretation of this law, he proceeds to inquire at great length into the nature of the diseases in which it occurs.

The result of this inquiry leads him to divide all diseases of this kind into two principal groups.

First. Diseases in which the morbid changes depend on fault originating in the solids affected; and

Second. Those in which the lesions originate in morbid states of the blood.

As an extreme case, and a fit type of changes originating in the former way, Dr. Budd refers to instances of monstrosity affecting corresponding parts of the body with exactly similar deformities; and many other examples of the same fact in other forms are also adduced.

The second group is again divided into two others.

The first of these includes diseases in which the morbid state of the blood probably consists in deficiency of natural ingredients; the second, those in which it depends on the presence of morbid matters of special kind in that fluid.

As a distinct example of the former, Dr.

Budd cites those cases in which ulceration of the cornea comes on in man and animals, fed on substances deficient in nitrogen; ulceration which almost always affects both eyes in an exactly similar manner. The disease named rickets is also mentioned as being probably another case in point.

The second group, that in which the morbid state of the blood depends on the presence of foreign matters of *special* kind in that fluid, includes a much larger number of diseases than either of the others. It is this group which has more especially engaged the writer's attention, and it is made the special subject of the subsequent remarks.

Having entered into a great variety of considerations, in order to prove that all the forms of disease of which examples are laid before the society fall under this description, namely, that all these are diseases which depend on the presence of foreign matters of special kind in the blood, he then proceeds one step further, and endeavours to show, by facts and inferences of various kind, that in each case the morbid matter peculiar to the disease which may be the object of regard is detained in the seat of each individual lesion, and is there held in affinity with the part affected; that being, in fact, the essential condition of the origin of such lesion.

A case of eruption caused by the internal use of the iodide of potassium, and distributed over corresponding parts of the body in patches of exactly similar pattern; the palsy of the wrists affect the same group of muscles in each forearm, which is caused by the presence and local action of lead absorbed into the system; the detention of madder in the bones tinging corresponding bones with the same shade and arrangement of colour, while all other textures are entirely free from it, are cases cited as types of the group, and as offering distinct illustrations of both points of the theory maintained by the writer.

In relation to this group, therefore, the law now takes a more specific form, and requires a distinct interpretation: for, according to these views, it is clear that the agency which here determines the lesions to assume a symmetrical arrangement, is, in fact, *that* which determines a given morbid matter in the blood to fix on one particular part, in preference to any other of the same structure; so that a given part once affected, the morbid matter not yet locally engaged is not free to fix on this or that part, however like to the first in outward appearance, but is drawn to that very part on the opposite side of the body, which is symmetrical with, or analogous to, the first. And this agency the writer conceives to be the same, in virtue of which, in the ordinary exercise of assimilation, corresponding parts of the body separate from the blood, and appropriate *matters of identical composition and in equal measure*, thus maintaining through life their original likeness in form, composition, and structure. The writer then remarks, that, under this view, the morbid matters of these diseases may be regarded as tests or measures of structural likeness, and calls the attention of the society to many cases exhibited in the casts and drawings on the table, in which lesions, exactly alike in form and nature, repeated themselves not only in the same situations in the limbs of the two sides, but *also in corresponding parts of the upper and lower extremities;* thus giving, in deviations from the normal state, much curious and novel illustration of those laws of symmetry and organic analogy, governing the evolution of opposite regions of the frame, which anatomists have already established on other grounds. Having fully proved the very general prevalence of a law of symmetry in disease, the writer next considers the causes which may interfere with its manifestation. Three very influential causes of this kind are recognised: these are, febrile movement, local injury, or any other cause materially affecting the organic state of a single part, and thereby determining morbid matters in the blood to that part in preference to others; and, lastly, circumstances having presumed relation to the *amount* of any given morbid matter present in the system.

The disturbing influence of these several conditions is illustrated by numerous examples; and it is then remarked that in effect of these causes of interference, which are so frequently in action, and perhaps of many others less distinct to apprehension, numerous exceptions of the law of symmetry *necessarily* occur, even in those diseases the most remarkable in general for the constancy and perfectless of its manifestation.

In consideration of the powerful disturbing influence of the condition first mentioned, and by observation of particular cases, the writer has been led to adopt the following proposition:—

That in diseases whose lesions have a tendency to symmetrical arrangement, the symmetry will be more perfect as the disease is more chronic in its progress, more free from febrile movement and local vascular excitement, *and in its course and character more nearly resembles the ordinary processes of assimilation:* and in this the writer finds a very remarkable confirmation of the particular view he has taken of the nature of the agencies concerned, in determining the symmetrical arrangements of the lesion in these cases.

The source, chemical character, and specific nature of the morbid matter of the diseases treated of, are the next subjects considered. But on these abstruse and difficult topics the writer's speculations become more vague, and are advanced with much less confidence; for these reasons, it is impossible to give a correct view of them in an abstract.

After entering at considerable length into this part of the subject, the writer concludes by relating a series of cases illustrating the views developed in the former part of the paper.

Dr. COPLAND said, that this "symmetry of diseased action" was only a new name for a principle that had been always acknowledged in medicine, viz., that if a depression of the vital powers, a cachectic state of the system, or any other cause which affected the constitution generally, produced disease in any organ which was double, the disease would be double likewise. He said that fever, which Dr. Budd had spoken of as one of the disturbing causes of this law of symmetry, was itself, in fact, an instance of this very harmony, for we knew that if inflamed kidney, bronchitis, or pneumonia, occurred in the course of fever, both kidneys or both lungs would be affected.

Dr. GREGORY remarked, that so many diseases appeared symmetrical, that he had been most struck during the reading of the papers with the diseases which were not so. The ophthalmia which followed small-pox scarcely ever affected more than one eye; he thought that nature probably made an exception to the law of symmetrical disease in this case, because the eye was such a very important organ. Gonorrhœal ophthalmia was always confined to one eye: he thought that this was generally the case with gonorrhœal inflammation of the testicle.

Mr. LLOYD had had three cases in St. Bartholomew's Hospital lately in which both testicles were affected.

Dr. BARTLETT had had great experience in gonorrhœal testitis, and believed that the inflammation always attacked one testicle and then spread to the other.

Dr. BUDD called attention to a drawing of symmetrically-dropped hands from lead, and said, that lead was detected in the muscles of the forearm of this patient.

Mr. CÆSAR HAWKINS inquired whether lead had been searched for in the other muscles of the body; and observed, that malignant diseases were an exception to this general symmetry of diseased action.

Dr. BUDD answered, that the lead had not been sought for anywhere else than in the forearm. Malignant diseases did not depend upon a chemical cause as did all those to which he had alluded, and that therefore they were not symmetrical.

Mr. PAGET had recently met with some cases of cancer and other malignant diseases in which the two sides of the body were equally affected in exactly corresponding parts, and he considered that these diseases followed the law of symmetry, when there was no disturbing cause. He was glad to find Dr. Budd's paper confirm his own in so many points.

The PRESIDENT had recently found the ergot of rye of great service in some cases of palsy from lead in St. Thomas's Hospital. He mentioned two or three cases in which it had effected a cure after numerous other remedies had failed; he gave it in doses of ten grains three times a-day. He had never seen it produce any unpleasant symptoms whatever, although one patient continued to take it every day for four months.

On rising, the society adjourned until the 11th of January, 1842.

MEDICAL SOCIETY OF LONDON.

Monday, Dec. 13, 1841.

Dr. CLUTTERBUCK, President.

CAUSE OF THE CONTRACTIONS OF THE UTERUS.

THE discussion on Dr. Alison's interesting paper has continued to occupy the society for two or three nights. We present the opinions of the different members at one view, in preference to giving them in a series of reports.

Dr. MARSHALL HALL observed, that the society was much indebted to Dr. Alison for having so ably brought before them the interesting subject of his paper. It was difficult to select from the many topics the author had discussed; it was the "embarras des richesses;" but Dr. Hall would briefly notice one or two. There could be no doubt that the action of the uterus in parturition was a function of the spinal marrow, as distinguished from the cerebrum and the ganglia, the other subdivisions of the nervous system. M. Olivier had related a case of parturition, perfect in every respect, in a patient suffering paraplegia; the disease was one of hydatid tumour compressing the spinal marrow, between the first and fourth dorsal vertebræ. M. Brachet had detailed a case of paraplegia in which there was complete inertia or inexcitability of the uterus, and though former accouchements had been speedy, it was in this case necessary to use the forceps. The seat of the disease was not mentioned, but he (Dr. H.) imagined it must have been so low in the lumbar region as to have interfered with the reflex uses of the incident and reflex nerves and the spinal marrow. There were several interesting facts which bore upon this subject. In the common hen, an egg was deposited prematurely, if the border of the cloaca were irritated by a few grains of salt. If the tail of the turtle were separated from the rest of the body, together with the cloaca in the ordinary manner of the cook, and if the cloaca were distended with water, this water gushed out on irritating the integuments a little higher than the sphincters. The lower portion of the abdomen of the libellula deposited eggs in the proper season on being shaken about on rough paper. There were cases on record of the human fœtus born after the death of its parent, the

spinal function having survived that of the brain and of the heart; these facts bore out the views of the author of the paper.

Mr. Dendy believed the doctrine of excito-motory action to be founded in truth, but thought that volition acted in urination and defecation. The uterus was under the influence of the brain, if not, why did mental emotion affect its action?

Dr. Theophilus Thompson knew of a case in which the uterus after death expelled a fœtus; the uterus possessed contractility independently of the spinal marrow. John Hunter had denied that nerves grew, but this was erroneous, as the valuable researches of Dr. Robert Lee had proved. During pregnancy the nerves and ganglia of the uterus became much developed: perhaps the medulla spinalis elaborated the nervous influence, and the ganglia acted as reservoirs.

Mr. Pilcher thought that uterine contractions were essentially connected with excito-motory action. Mental impressions sometimes induced and sometimes prevented uterine contractions; and this proved a connection between the brain and the uterus, the same which existed between the brain and other parts. The excito-motory nerves terminated in the grey matter of the medulla spinalis, while the nerves of volition and sensation ran up into the brain itself; the investigations of Grainger had decided this point. Grey nervous matter, wherever situated, elaborated nervous force: the ganglia formed a beautifully-connected chain throughout the body, subservient to excito-motory action. Mr. Pilcher agreed with the author of the paper in regarding the fœtus as the stimulus of the uterus. The medulla spinalis might be regarded as a chain of ganglia. The locomotion of man was occasionally excito-motory. In the lower animals, such as the rabbit and hare, the sole of the foot was very insensible to ordinary impressions, but the slightest touch upon the hair or fur on the back of the part would induce excito-motory actions, even when the animal had been dead for some time. At this part the nerves were large, and it was well known that the nerves at the heel in man were large also, and that ganglia were found here and there. In man, the will commenced the locomotive efforts, and these afterwards became excito-motory, and independent of the mind of the individual. The impressions made upon the sole of the foot excited the ganglia of the part, and these roused to action the muscles of the members; it was thus that the merchant, absorbed in commercial transactions, walked unconsciously, and passed his own door.

Mr. Dendy dissented *in toto* from the views of Mr. Pilcher respecting locomotion; the phenomena but not the deductions were correct; the somnambulist was not altogether asleep. At Corunna the soldiers walked during sleep, but the mind was partially awake. Why take the actions from the brain, and place them in the ganglia? Certain actions might continue for a time independently of the brain, and were to be referred to the nervous energy of the parts concerned, not being totally exhausted. Mr. Dendy related a singular case of dreadful itching of the skin, without any visible disease, in order to illustrate the influence of the brain. Within the last few days he had been consulted by a lady suffering the utmost agony from an itching over the body, unaccompanied by any apparent disease of the skin; she had not slept for nine nights. A knock at the door, or any other similar shock, would instantaneously produce a severe aggravation of her sufferings: the stools were pale, and there was an excess of uric acid in the urine, but these conditions could not account for the immediate paroxysms.

Dr. Marshall Hall was anxious to confine the attention of the society to the facts of the question before it. On removing the cerebrum certain phenomena were removed; these were those of sensibility and of voluntary motion. Those actions which he (Dr. H.) would beg to call spinal rather than excito-motory, and those of the ganglionic system remained. On removing the spinal marrow, the spinal actions or excito-motory phenomena ceased in their turn; the function of respiration ceased; deglutition and the action of the sphincters were annihilated, with all those actions which had been denominated sympathetic, and a series of facts observed by Redi, Whytt, and others. If the experiment were properly performed on the frog, the circulation might remain vigorous, and might be effected through the medium of the ganglionic system, which now remained alone. However familiar the acts of ingestion and of egestion, and the actions termed sympathetic, had, of course, long been, they were not formerly referred, distinctly and exclusively, to the spinal marrow. Now, that the action of the uterus in particular was a spinal action, seemed to be proved by a variety of circumstances. The whole of the act of parturition, and therefore the art of midwifery, depended on the principle of the spinal marrow, or excito-motory action. An interesting fact afforded a proof of this view of the subject; in protracted uterine hæmorrhage a douche of cold water induced sudden contractions of the uterus, and arrestation of the hæmorrhage. Might not lingering labour be hastened by the same measure? Another fact of the same kind was that of the introduction of the hand within the uterus, well known to practitioners of midwifery. The effect of the douche in uterine hæmorrhage was not that of the mere application of cold; the constant application of ice produced no such effect; it was the sudden change, the sudden impression on the nerves, which induced contraction of the ute-

rus, just as the dashing of cold water on the face, or on the general surface, induced sobbing inspirations. The same principle would guide us in the treatment of syncope and asphyxia. The surface to which the douche was applied should be first warmed; the impression of the cold might then be secured.

Mr. PROCTER believed that the application of cold in connection with uterine action was highly important. The douche applied from a distance produced remarkable effects; he had introduced his hand into the uterus on some occasions, but he regarded this mode of proceeding as of questionable utility; he preferred pressure with the hands upon the abdomen. In one case the uterus contracted well after delivery, but a few hours subsequently it was found that this organ had been relaxed, and was distended with blood; pressure with the hands upon the abdomen in this case was useful. He recommended pressure, together with the application of cold from a distance, in cases of non-contraction of the uterus after delivery.

Mr. HEADLAND objected to Mr. Pilcher's views regarding locomotion; if so many phenomena were to be referred to the spinal marrow, of what use was the brain? and this organ in man evidently performed an important part, judging from its size. The action of the uterus was occasionally induced by mental impressions; when fright produced miscarriage, the expulsory effort was certainly referrible to the mind.

Dr. CHOWNE observed, that it was incorrect to maintain that, because excito-motory movements, as of the uterus, continued for some time after the removal or destruction of the brain, that the actions did not depend upon this organ, for the brain might impart an influence which might remain for some time after its removal. There was such a thing as a prospective store in nature; eating was essential to life, yet a man might exist for some time without food; he would not conclude that because excito-motory movements took place after the destruction of the brain, this organ was not subservient to them.

Dr. HALL remarked in reply, that the fœtuses in which the brain, and the brain and spinal marrow never did exist, afforded a sufficient proof that the spinal marrow was not merely charged by the brain, or the ganglia by both. Here the battery is charged without the electrical machine.

Monday, Dec. 20, 1841.

The discussion on Dr. Alison's paper was resumed this evening.

Dr. CLUTTERBUCK said, that he was not prepared to assent to the doctrine of excito-motory action; the various actions which had been referred to this system were explicable on the old doctrines, and he referred them to the brain, which was the chief depository of the nervous influence. The spinal marrow, the ganglia, and the nerves, and perhaps even the organs themselves, become charged with this force from the brain. There was little correspondence in the views of the advocates of the new doctrine.

Mr. HIRD said, the locomotion of man was not excito-motory. There was certainly a spinal action. The locomotive efforts of the lower animals were referred to instinct.

Mr. CRISP mentioned that he had lately attended a gentleman affected with paraplegia; on tickling the paralysed limbs with a straw, muscular efforts were induced.

Mr. PROCTER said, that no animals lived long without the action of the brain. In rapidly-mortal examples of apoplexy, as those proceeding from copious effusion of blood, no excito-motory movements took place.

Dr. BENNET could not account for many movements which took place in apoplexy, such as the raising of the arm, turning in bed, &c.; there could be no volition, yet there were what were usually called voluntary motions: the excito-motory doctrine explained many facts previously unintelligible.

Several other members joined in the discussion of the excito-motory doctrine, but nothing new was elicited.

In the course of the evening, Dr. Theophilus Thompson exhibited to the society two gall-stones which had been taken from the gall-bladder of a man who had died of jaundice and disease of the heart. The gall-stones were about the size of small filbert-nuts.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Dec. 19, 1841.

Dr. GOLDING BIRD, President.

CASE OF ACUTE PERITONITIS CONSEQUENT UPON THE RUPTURE OF A FÆCAL ABSCESS INTO THE CAVITY OF THE PELVIS, WITH CHRONIC DISEASE OF THE CÆCUM AND ULCERATION OF THE APPENDIX VERMIFORMIS.

MR. ROBERT DUNN detailed the following case. The patient was a young lady, just attaining her twenty-first year, and on the eve of marriage. Mr. Dunn had attended her between two and three years previously for a severe attack of continued fever, when she suffered so much from a dysenteric state of the bowels, that ulceration was dreaded. In the present instance he was called to her on Sunday week, and found her labouring under sickness of stomach, griping pains in the bowels, frequent inclination for motion, great thirst, and general febrile disturbance, all attributed to her getting wet and cold on the previous Wednesday. He found her much relieved the next day, after having taken a dose of hydrargyrum cum cretâ, with Dover's powder, and some effervescing

saline medicine. Upon examination, however, he detected a tumefaction in the region of the pelvis, which was very painful on pressure. A purgative of calomel and rhubarb was ordered, as the bowels had not been relieved. This produced two or three evacuations, and the bowels were again relieved on Wednesday. The sickness had abated, but there were still pain and tenderness on pressure, which were attributed to the catamenia which appeared to-day. On the day following she was so much better that she was allowed to get up, and went down stairs. The fatigue of this appeared to be too much for her, and she was very ill throughout the night. When Mr. Dunn saw her early the next morning, she was labouring under unequivocal symptoms of acute peritonitis, with great prostration of power. The abdomen was tympanitic, and on a careful examination he could detect a distended state of the bowel arising from the right iliac region, and giving the sensation to the hand as though it were an ovarian cyst. This led to the opinion that there was obstruction at the cæcum. Leeches were immediately applied, and calomel and opium administered every four hours; and in the afternoon of the same day she was seen by Dr. Addison. The tympanitic state of the abdomen had become so general, that the peculiarity on the right side could no longer be felt. There was now incessant sickness, with a constant effort to expel flatus from the stomach, and obstinate constipation. Dr. Addison took the same view as Mr. Dunn of the case, and attributed the sudden invasion of the alarming symptoms to some latent disease about the cæcum. She lingered on till Sunday afternoon, and then expired. On a post-mortem examination, the peritoneum was found to be universally inflamed. The small intestines were excessively distended, particularly the last portions of the ileum. The parts about the cæcum were agglutinated together, and it was at once manifest that a large fæcal abscess had burst into the cavity of the pelvis. The cæcum was in a state of chronic disease, and a great portion of the vermiform process had sloughed. In consequence of the ulceration of the appendix vermiformis, it would appear that the fæculent matter in the cæcum had passed into the peritoneum, which, exciting a circumscribed inflammation, had walled in the effused matter, and thus produced the fæcal abscess, which had been gradually enlarging, and had at last suddenly burst. The walls of the abscess were evident. The sudden invasion of the peritonitis was, doubtless, to be ascribed to the rupture of the abscess, and the escape of its contents into the cavity of the abdomen.

Dr. Addison believed that cases similar to the one recorded by Mr. Dunn were of frequent occurrence. They were not, he thought, so difficult to diagnosticate as might be supposed. In several cases of this description he had found some prominent symptoms which would seem to afford unequivocal evidence of the real nature of the disease: thus the patients were always indisposed for a short time previous to the attack,—this was sudden—there was usually pain in the region of the cæcum previous to that symptom becoming general over the abdomen—a distinct tumour was generally to be felt in the situation of the small intestines, arising from flatulent distension of these viscera; and there was in all cases which he had seen a peculiar kind of hiccup, apparently connected with eructation of wind. These symptoms he had usually found connected with disease of the cæcum and its appendix. In Mr. Dunn's case, he thought that the original foundation of the mischief had been laid by the fever under which the patient had laboured two or three years before, for we knew that fever frequently left injury in the intestines.

Mr. Snow being called on for his paper on

PARACENTESIS OF THE THORAX,

stated, that whenever any fluid, whether a liquid or a gas, accumulated within the pleura, it was desirable that it should be got rid of. Tapping the thorax, however, was the means adopted only in those cases where the liquid was known or presumed to be pus, or where there was serum or air in one pleural sac in such quantity that one lung was rendered useless, and the mediastinum was pushed aside, and the function of the other lung so interrupted that life was endangered. And under other circumstances than these, the ordinary modes of performing paracentesis of the chest, whether by the trocar or the bistoury, would not diminish the existing evils. So soon as an artificial opening was made into the pleura, the lung on that side collapsed, in accordance with its own elasticity, and remained unaffected by the motions of the ribs and diaphragm. It mattered not whether the air pressed immediately on the surface of the lung, or through the medium of a liquid effusion, the effect would be the same. It followed, then, that at the conclusion of paracentesis performed in the ordinary way, the lung must be collapsed, and the space between it and the ribs occupied by air, provided all the liquid had been removed; and, in fact, the air could be heard passing into the chest by bubbles, as the liquid flowed out during the operation. This introduction of air into the pleura would most likely be injurious whenever that membrane was in a state of inflammation; but the greatest evils arising from the admission of air were occasioned by its mechanical resistance to the expansion of the lung. The lung on that side could only be brought into use in proportion as the air con-

tained in its pleura was absorbed, and the complete absorption of it must occupy, at the least, several days; and during this time not only must the patient suffer from limited respiration, but time was allowed for the lung to become bound down by the consolidation of the coagulable lymph which might be effused, and thus permanently detained within its shrivelled dimensions. Provided the serum could be removed without being replaced by air, its removal, whilst in moderate quantity and recently effused from pleurisy, would prevent the diminished lung and contracted chest which often followed that complaint. When, from pneumothorax, or effusion of serum, the lung was pressed close to the spine, the mediastinum pushed to one side, and the ribs and intercostal spaces distended, the common operation of paracentesis gave great relief, because it allowed the thorax to return to a state of equilibrium, and relieved the lung of the other side. But even in this case, or where purulent matter was removed, it would be a great advantage to leave the patient with the pleura empty and the lung expanded, and filling the chest. To make an opening into each pleura, and allow both lungs to collapse, would be to cause instant death by asphyxia; accordingly, the two sides of the thorax could not be tapped in the ordinary method on the same day. And when dyspnœa existed from liquid in both pleuræ, the patient could not dispense with one of his embarrassed lungs; he evidently could not live with half the respiration he has got, accordingly paracentesis was not performed in hydrothorax; a disease which nearly always occupied both sides of the chest, and one which if not relieved by medicine soon proved fatal. But provided the serum could be removed without making a communication between the external air and the pleura, he did not see why tapping might not be performed on the thorax with the same safety and success as on the abdomen. Dr. Davidson, of Glasgow, had lately proposed the use of cupping-glasses over the canula, introduced for empyema, in order to prevent the ingress of air, and related cases of their application. Now this was, to a certain extent, an improvement, but it still left the operation far from a state of perfection; for, not to mention other objections, it was obvious that on the removal of the cupping-glass, air must rush into the chest before the canula could be withdrawn, or other means taken to stop the opening; and in a case Dr. Davidson related, the splashing of fluid was heard on performing the hippocratic test of shaking the patient, three days after the operation, and they knew that could only take place when there was both air and liquid in the thorax. The chief object of his paper was to bring before the notice of the society an instrument (a drawing of which was handed round), by which any fluid could be withdrawn from the chest without making any direct communication between that cavity and the external air. It consisted of a trocar and a canula, with a stop-cock in it, the trocar to pass through the open valve of the stop-cock. Between the shoulder of the trocar and the part where it began to be pointed, there was a cylindrical portion made to fit accurately to the whole length of the canula. In withdrawing the trocar from the canula, after their joint introduction, it could be brought so far as to be clear of the stop-cock, which could then be turned before the complete removal of the trocar, so that no communication with the atmosphere would take place. The other part of the instrument, viz., a double-action syringe, with two distinct valves, like a stomach-pump, and a short piece of elastic tube, to connect it by means of a screw-joint with the canula, could then be adapted to that tube, and the valve of the stop-cock being reopened, by working the pump the fluid would be discharged from the thorax into a basin, held to receive it. Before introducing the trocar, the skin should be drawn a little from its situation; and then, by withdrawing the canula slowly at the end of the operation, the correspondence between the superficial and deeper wounds would be lost before air could enter the pleura. It might happen that the lung might be bound down in a case of effusion, and then it would evidently not be practicable to draw off the whole of the liquid. The resistance to using the pump, and the sense of uneasiness in the patient, would indicate when to stop, as in using the enema-pump; and if the liquid were serum, it would be preferable to leave a little in the thorax, rather than decant it off and replace it by air; if, however, it were pus, the pump could be removed and air admitted: or, if warm water were thought preferable, it could be introduced by adapting a bladder filled with it to the canula. It would be obvious that the instrument would possess great advantages in cases in which paracentesis was at present performed, and that it would extend the occasions on which the operation might be resorted to with advantage.

Dr. Addison asked what objection there was to the introduction of air into the pleura? He admitted that the instrument was a very ingenious invention to prevent that occurrence, but he had never seen any evil result from it. The action of the pump could not expand the lung, if it were bound down by organised lymph, and, therefore, he did not see the advantages of it; for if the lung were not bound down it would expand and contract with the motion of the chest, although air was contained in the pleura. He did not see the necessity of removing the effusion in order to prevent the lung from being bound down, for when there was any quantity of liquid it was of a sero-purulent and not of an organisable nature, and oc-

curred in cachectic and debilitated subjects, and not in those in whom coagulable lymph would be thrown out during inflammation. He did not perceive any difficulty in tapping the chest with the common trocar for hydrothorax. He had lately had the operation performed on a patient, who was relieved by it. One side of the chest was tapped, and this contained considerably more serum than the other; air entered, but was afterwards absorbed. He saw no objection to the entrance of air, for the hydrothorax did not cause inconvenience by preventing the expansion of the lungs, but by pressing on the mediastinum, and thus interfering with the circulation of the blood, for they knew that respiration might be greatly limited, and that one lung might be altogether dispensed with without inconvenience.

Dr. Frederick Bird said, that the entrance of air into the pleura during paracentesis did no harm, and he mentioned two or three cases in which there was pneumothorax immediately after the operation, but the air was absorbed in a few hours. He did not consider that the present instrument was an original invention—it appeared to be a modification of a recent invention by a German writer, which was on the plan of the old enema apparatus. It consisted of an empty bag, which was drawn over the trocar and canula, and fastened to the chest by adhesive plaster; the trocar, when withdrawn, was allowed to fall into the bag into which the liquid followed.

The President said, that it should be recollected that the air admitted during paracentesis was a highly elastic and compressible fluid, and would not offer so much resistance to the expansion of the lung as the liquid which had been removed.

Mr. Snow replied, that the greatest objection he had to the admission of air into the pleura, was the mechanical resistance it would afford by its bulk to the expansion of the lung; when that organ was left to its own elasticity during the operation, it would leave a considerable space between itself and the ribs to be occupied by air. He considered the distinction Dr. Addison had drawn between the nature of the effusion when it was in large quantity and when the contrary, was correct as a general rule; but the fact that contracted chest sometimes followed pleurisy, was a proof that considerable effusion might exist, and enough organisable lymph to bind down the lung, so that the chest became pressed in on the fluid being absorbed. He was still of opinion that if the dyspnœa were great from hydrothorax, and the effusion pretty equal on both sides, as it was very apt to be, that the patient could not spare the use of one lung for a moment to allow of tapping in the common way, without a risk of losing his life. When hydrothorax caused difficulty of breathing, it must be by preventing the expansion of the lungs, for it could not ever interfere with the circulation in any other way than by interrupting the function of the lungs, and so impeding the pulmonary circulation. The pressure on the large vessels would always be the same as in health, however much effusion there might be in the chest, viz., it would be a little less during inspiration, and a little more during expiration, than the atmospheric pressure. He was happy to hear of the German invention, for it at least showed that some persons objected to the admission of air; but though that invention excluded the air, it did not exclude the atmospheric pressure, and it would evidently be impossible by its means to extract all the liquid, which would be a disadvantage, more especially in empyema. He admitted that air was an elastic and a compressible fluid; but this was an argument against its introduction, and in favour of the instrument he had proposed, for the air would expand during inspiration on attempting to expand the lung, and be compressed during expiration when the lung should be diminished.

Mr. Brooke proposed, in the absence of the new instrument, that the canula should be closed with the finger during inspiration, and then the patient should be made to expire forcibly, in order to expel the air from the pleura.

Dr. Addison remarked, that it was impossible to command the exertions of the patient, and said he had an invention of his own to prevent the admission of air. It consisted of a very delicate valve to the canula, to allow fluid to pass out of the chest, but prevent the return of air. He should be happy, however, to try Mr. Snow's instrument when he had a case requiring the operation.

Adjourned to January 8.

THE BICHLORIDE OF MERCURY.

SMALL DOSES.

To the Editor of The Lancet.

Sir,—I beg a niche in your valuable Journal, in justification of my paper on "the exhibition of mercury in small doses," inserted in August last, in consequence of remarks made thereon by Mr. James Bland, of Macclesfield, one of your correspondents. In writing the paper alluded to, I felt convinced that the practice which I advanced was a correct one, and would bear the test of experience; and I have been happy to find my opinion supported by men of standing and experience.

In the commentary of Mr. Bland there is a misunderstanding of the principles which I attempted to show. He states my words to be, that "he *never* saw a decided case of ptyalism from the exhibition of the bichloride alone." Now, the words I used in The Lancet of August 21, were these,—that "I

scarcely ever saw a decided case of ptyalism," &c. I never denied the possibility of producing ptyalism by the bichloride; I only averred, from having given it in hundreds of cases, that its effects were very uncertain, and often very questionable; and that where I was necessitated to produce ptyalism, I had almost invariably to substitute those preparations of mercury which are known to be more certain in producing it. Mr. Bland misconceives my opinion if he supposes that I wish to condemn any useful remedy. I have found the bichloride often very useful, particularly in cutaneous affections.

Of small doses, Mr. Bland says he is as great an advocate as myself, for, says he, "I give one-twelfth of a grain of the bichloride for a dose." Now, whoever reads the paper alluded to will find that I consider one-twelfth of a grain of bichloride to be a large dose, and that I prefer, with Dr. Law, Tosswill, and others, the chloride in doses of one-twelfth of a grain,—a very different preparation from the bichloride. I would add, that the communication of T. H. Tosswill, of the Leicester General Dispensary, supported the views which I had promulgated by some well-authenticated cases. I am, Sir, yours respectfully,

CHARLES CLAY, Surgeon.

101, Piccadilly, Manchester,
Dec. 25, 1841.

EXTENT TO WHICH DRUGVENDERS SHOULD PROCEED.

To the Editor of THE LANCET.

SIR,—A letter appeared in your columns a week or two ago, proposing that the chemist and druggist should be allowed to act as a medical practitioner, in his own shop, for the *first twelve hours* of an attack of illness. As this has not elicited any remarks from your numerous and able correspondents, I may be excused for briefly reverting to the subject. This proposition appears to be objectionable on two grounds: first, the concession thereby made that the chemist and druggist is entitled to public confidence *as a medical practitioner* to any, the smallest, extent; and, secondly, the difficulty, if not the impossibility, of putting such a plan into effective operation.

Inasmuch as the chemist and druggist oversteps his own trade and calling whenever he presumes to prescribe, safety for the public and justice to the profession demand that he be wholly deprived of the power of this. Nevertheless, in conformity with that liberty which every Englishman enjoys, I would submit that he be allowed to *recommend* this, that, or the other, to those who choose to consult him; provided always it be not done *in formâ medici*. If, however, he examines a wound, &c., as a surgeon, or the pulse, the tongue, &c., as a physician, and gives medicine, or pretends to do so, in consequence of that examination, then he imposes himself upon the patient for an educated man, and should be made amenable to the law. As a citizen, and as a tradesman, he may be allowed to recommend any thing he vends; but when he goes beyond that, he endangers the public safety, and infringes upon the exclusive rights of the profession. I am, Sir, your obedient servant,

J. WATSON, M.R.C.S., &c.

Ashted-row, Birmingham,
Dec. 18, 1841.

*** The heading which we prefixed to the letter in question, surely supplied an ample comment upon the proposition that it contained.

ACCIDENT RELIEF SOCIETY.

To the Editor of THE LANCET.

SIR,—I am much pleased that the Accident Relief Society has been enabled to do so much good during the year 1841. I have just seen a paper issuing from the committee, which states the progress of the funds and the present extent of its operations. Knowing how much you approve of the charity, and how deeply you feel for the poor, I have presumed to forward the information to you, in the hope that you will kindly insert it in your excellent Periodical. The income in 1836 was 63*l.* 12s. 2d.; in 1837, 168*l.* 5s. 6d.; in 1838, 152*l.* 18s. 6d.; in 1839, 260*l.* 0s. 11d.; in 1840, 402*l.* 5s. 6d.; in 1841, 727*l.* 16s. 4d.

I find from their books, which are always open to inspection, that the committee have given to two hundred and twenty-one truly-deserving families—

4,446 quartern loaves.
4,345 pounds of meat.
89,635 pounds of potatoes.
1,809 cwt. of coals.

Now, Sir, if you would have the kindness to lay these facts before the public, with any additional remarks, you will greatly oblige a subscriber to your valuable Publication, and one of your warmest friends,

HUMANITAS.

From the prospectus which accompanied this note we extract the "plan of the institution:—

"It is a painful fact, that more than *thirty thousand accidents annually occur in this metropolis*, involving a vast number of the families of the labouring classes in distress and want. This society was instituted to give immediate relief to such, by supplying the families with food. The hospitals receive the injured husband, but do not provide for his family.

"The committee are anxious to explain, as distinctly as possible, the way in which relief is given. Each member of the committee is supplied with a printed check-book, from which he issues orders to respectable tradesmen for bread and meat, coals and potatoes.

"In this way, during the past year, the committee have given away to very many truly deserving families 3320 lbs. of meat, 3320 loaves of bread, 1250 cwt. of coals, and 17,500 lbs. of potatoes.

"This plan has been adopted to avoid, as much as possible, the misappropriation of the relief given; and so strict have been the means employed to ascertain that the families were warmed and fed as designed, that not a single case has been known during the past year of any parties relieved selling their food for any needless or injurious article."

ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—I beg leave to transmit to you the inclosed document, and to request that you will be pleased to give it a place in your Journal, as it contains information which is of importance to many members of the profession. I am, Sir, your most obedient servant,

EDMUND BELFOUR, Sec.
Royal College of Surgeons in London,
Dec. 26, 1841.

"Royal College of Surgeons in London,
Dec. 16, 1841.

"The president and council finding it necessary to reprint the list of the members of the college early in the ensuing year, all those members who have not attended to the wishes of the council, as expressed in their notices of the 8th of April, 1841, are requested to send in their names, with the dates of their diploma and their present residences, between the 1st of January and the 1st of February, 1842, on which latter day the list will be sent to press.

EDMUND BELFOUR, Sec.

MR. MORDAY'S CASE OF PROLAPSUS UTERI.

To the Editor of THE LANCET.

SIR,—Respecting the case communicated by Mr. Morris of successful operation for prolapsus uteri by Mr. Morday (page 399), there are several points deserving further information; and as the operation seems worthy the attention of the profession, your pages may, perhaps, be usefully devoted to the subject. If the "rough notes" in the possession of Mr. Morris will not furnish him with answers to the following queries, perhaps this address may attract the notice of Mr. Morday. I beg to ask,

First. What was the length of the folds excised?

Second. Did they commence at the point of reflection of the vaginal membrane upon the neck of the uterus?

Third. Why was the uterus allowed to remain prolapsed for four days after the operation?

Fourth. Was the pessary discontinued after the 10th of July? I am, Sir, your obedient servant,

W. C.

December 23, 1841.

CASES OF STARVATION.

DEATH from want of food is of common occurrence among us, and instead of challenging the correctness of verdicts to that effect, people ought rather to be astonished that they are not more frequent. Everybody has heard of the Bolton cases, the denial of which only caused inquiries to be made, that brought out facts a great deal more appalling than those which had been originally stated. The suicide of Betty Thompson and the murder of her child, at Leigh, cannot be forgotten. Several cases have recently occurred at Manchester, and the reason why we do not hear of more, everywhere, is the backwardness of many to make their circumstances known, and their reluctance to stand the badgering which has often to be endured from overseers and relieving-officers. They are starved, bit by bit, into unnatural and apathetic submission to their wretched lot, and they "die and make no sign." Are there not many in Blackburn, as well as Bolton and Wigan, who can respond to these sentiments?—*Bolton Paper*, Dec. 11.

TO CORRESPONDENTS.

G. M. S.—Take the boy to University College Hospital, Upper Gower-street.

FROM DOCTOR TURNBULL.—*To the Editor.*—Sir, In perusing a letter signed "H. M. W." in THE LANCET of the 25th of December upon "Medical evidence in a case of death from an operation on the Ear." The narrator states "The operation is dangerous; it has caused death in the hands of an eminent educated Physician, Dr. Turnbull!!" This statement is untrue for no individual ever died under my hands nor after any operation which I ever performed. Your giving insertion to this in your next Journal, will much oblige your obedient servant, A. TURNBULL, M.D. 48 Russell-square Dec. 27th, 1841.—

*** Printed as written.

The letters of *A Medical Superintendent*, *Mr. Hill*, *Mr. Burrows*, *Mr. Smethurst*, *Dr. J. A. Easton*, *Dr. Henderson*, and many other correspondents, if possible, next week.

The Cumberland Infirmary matter must rest for another week.